



CASE STUDY

Plutora Improves Test Environment Scheduling and Management for O₂/ Telefónica UK's Software Delivery



A *Telefónica* company

Customer

O₂ is a leading mobile network operator and the principal commercial brand of Telefónica UK Limited. It has around 6,700 employees in the UK across three main offices and 450 stores.

Region

United Kingdom

Industry

Telecommunications

Products

Plutora Test Environment and Release Management

Business Objective

Improve the speed and quality of application development and delivery through improved management of test environments.

Challenges

- Fragmented and abundant number of test environments
- Limited visibility of test environments posed potential impact on O₂'s customers and the business
- Duplication of time spent collaborating with diverse information sources for non-production environments

Benefits

- Centralised management of disparate test environments
- Live visibility of test environments including live dashboards and reports
- New process to manage conflicts and alert key stakeholders to any IT issues or changes in test environment status
- Proactive management of non-production environments improved their agility and resiliency

Results

-  Critical test environments now being managed
-  Reduced unplanned outage of non-prod environments
-  Saving admin time through automated scheduling & coordination
-  Reduced delays on test schedules due to misconfigured environments
-  Improved environment agility

Challenges in Software Delivery

Telecommunications is a fast-moving industry. As a leading brand at the forefront of the industry, O₂ has continually innovated new mobile products and has championed customer experience. In order to maintain and extend its leadership position, O₂ maintains the highest standards in its IT application delivery in order to support its massive customer base which comprises over 33 million connections. However, its IT infrastructure experienced a number of challenges which could slow down the planned improvements.

The UK IT test environment management group supports a large number of internal teams. They were faced with over 30,000 emails and remedy requests relating to non-production environments. In addition, scheduling environments were not centrally managed allowing each team to manually add their bookings into spreadsheets with little or no collaboration or arbitration on conflicts. Management of communication and schedules was an unsustainable situation without more effective tools or a lot more people. In the case of unplanned outages (i.e. failures in non-production systems or applications) it could take several days to work through the various architectures to understand where the root cause of a test system outage originated. Furthermore, it drew heavily upon many different support teams which had to be coordinated using manual lists. Ultimately, IT testers were often unable to carry out their testing projects whilst issues with the test environments were being investigated.

Mark Lewis, UAT Test Environment Manager at O₂ commented, "One solution we sought was visibility of all of our test environments to avoid double-bookings and uncontrolled changes and make sure sufficient management is in place to be effective."

The UK IT test team - in conjunction with its quality test partner, NTT DATA - decided to undertake a review of IT test environment management tools to provide a solution to address these issues.

"We are rolling out a dynamic, company-wide IT test environment view in the UK where key stakeholders will be able to self-serve with customised dashboards and reports and see environment utilisation centrally for the first time. Plus they can be alerted to any potential system conflicts, enabling them to have a direct conversation with the stakeholders affected and take immediate action."

Rob Hutchinson, Senior Test Manager, IT Billing and Charging, O₂

Key Highlights

Company

O₂ centralised its IT test environment management

Processes

Processes were manual and lacked coordination and collaboration from the different IT teams. It was taking several days to track and rectify unplanned test-environment outages. Conflicts (double-bookings) were common through not having visibility of other bookings on the same environments.

Technology

Past - Spreadsheets and email.
Present and Future - Plutora.

"One of the main problems was that we just didn't have visibility of all of our test environments and that frequently resulted in double-bookings and uncontrolled changes because there wasn't sufficient management in place to be effective"

Mark Lewis, UAT Test Environment Manager at O₂

Partnering with Plutora

After a two-month external review of IT test environment tools, O₂ and NTT DATA selected Plutora because it is an independent, dedicated, test environment management platform that could be rolled out across the business. Plutora was brought in to deliver the following outcomes:

- 100% visibility of the test environment planning
- Enable unified scheduling for the first time
- Centralised environment booking and change requests for testing and change management
- Automation of manual improvement processes to increase productivity and cut resource duplication
- Integrate seamlessly with Plutora's standard APIs so other systems and tools used in the O₂ ecosystem can benefit and further reduce effort and manual updates
- New self-service capability for the senior leadership team via Plutora's reporting feature
- Up-to-date dashboards, alerts, notifications and analysis to engage stakeholders and reduce unplanned outages

“Plutora was the only tool dedicated to IT test environment management, rather than it just being an add-on, and the team was really flexible and supportive.”

Mark Lewis, UAT Test Environment Manager at O₂

The focus of the O₂ IT test team is to support the IT environments, including physical hardware and application upgrades that support their customers during their test lifecycles. This spans simulation of buying a new mobile phone to services that support their provisioning such as operations and billing upgrades. The implementation of Plutora was carried out in two phases to ensure a smooth transition from the existing two tools which only included IT testing as an add-on.

In phase one, O₂ and its QA test partner, NTT DATA ran a pilot and was satisfied that the tool contained all mission-critical processes to ensure that when any service exits the test phase it can be fully integrated into production with minimal risk.

After four months, phase two of the implementation extended a roll out to 60 test environments including support of the company's compliance with the European Union GDPR data compliance regulation which came into force in 2018.

“Our main priority for the next two years is to ensure that test environment and release management are given the focus they need and we are as efficient as possible.”

Mark Lewis, UAT Test Environment Manager at O₂

“Plutora gives us a solution that helped reduce unplanned non-production outages by 50% in a year.”

Rob Hutchinson, Senior Test Manager, IT Billing and Charging at O₂

Benefits

The telecommunications company has made immediate gains following the Plutora implementation. Many IT testing problems that the company experienced in the past have disappeared due to the hard work of O₂'s IT Environment Management team with quality test partner, NTT DATA and Plutora. Standardising the handling of IT test environments with Plutora has meant a considerable reduction in testing effort and a much easier, more efficient way of managing IT schedule conflicts. Now key stakeholders can be alerted automatically to any issues or changes in IT environment status.

Release and environment teams are no longer relying on spreadsheets. Manual improvement processes have been automated and standardised. Consequently, a single, dynamic view of IT test environments has been created from which vital intelligence is garnered to prevent any detrimental impact on internal project delivery. Implementing Plutora has contributed to O₂'s IT modernization and drastically reduced unplanned non-production downtime by 50% in a year. Before, these outages were managed by identifying incidents manually. Then they were communicated to affected stakeholders and project teams using a shared mailbox. Now, the Environment request module in Plutora is used to capture environment bookings and system changes. Also, reports and workflows have been automated to broadcast communication to projects and support groups.

Furthermore, O₂ is using Plutora's reporting feature to automate monthly KPI reports, thereby improving measurement and giving a foundation for productivity improvement.

Summary of Benefits

- Centralisation, management and automation of IT test environments for the first time
- Live visibility into status of releases and environments including current configurations
- Improved conflict scheduling through Plutora's visual 'Environment Scheduling' feature
- Increase in test environment utilization enabling decommissioning or repurposing of underutilized environments
- Productivity improvement by reducing time spent collaborating, tracking configurations, and conflicts. Team can now focus on process improvements including more automation.
- Vital IT intelligence created for faster, more effective decision-making

About Plutora

Plutora provides value stream management solutions for enterprise IT, improving the transparency, speed, and quality of software development and delivery by correlating data from toolchains across a portfolio and analyzing critical indicators of every aspect of the delivery process. Acting as the "catwalk above the factory floor", Plutora ensures the organizational alignment of software development with business strategy and provides visibility, analytics, and insights into the entire value stream. This approach guides continuous improvement and digital transformation progress through the measured outcomes of each effort. Plutora ensures governance and management across the entire portfolio by orchestrating release pipelines, managing hybrid test environments, and orchestrating complex application deployments - all independent of methodology, team structure, technology, and level of automation. .

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