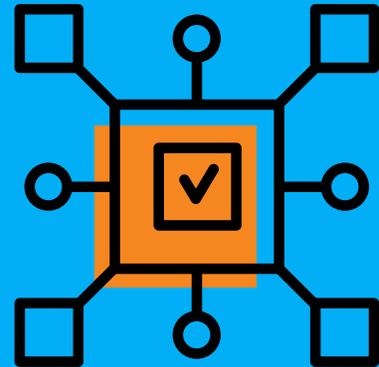


# Test Environment Coordination and Orchestration



Challenges with testing and quality in Agile projects are increasing. The availability and reliability of test environments and test data are some of the most notable causes. Almost half (46%) of enterprise IT departments don't even have visibility into test environment availability or demand.

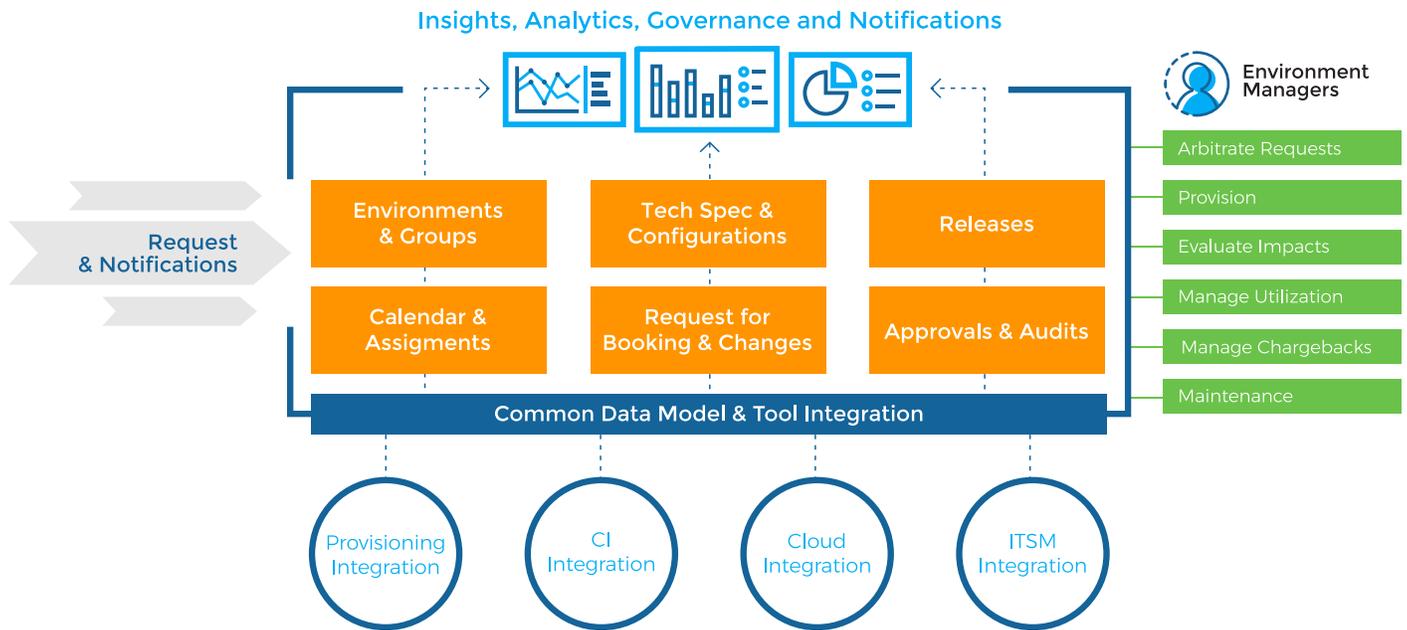
## Organizations Are Losing Control Over Their Enterprise IT Environments

Pre-production test environments have become a choke point in the application delivery cycle, resulting in project delays, or worse, a false sense of security with an application tested against a misconfigured environment.

Many factors work against the efficient management of test environments including lack of ownership, disjointed tracking, managing multiple versions, expansion of SaaS and virtual test environments, and vendor or partner managed environments. Scheduling is complicated, requiring more than just system availability; it needs an estimate of time required to ensure correct configuration and appropriate test data. Test environment managers – when they exist – have disparate, non-integrated systems tracking requests and current configurations, often with conflicting information. They struggle to plan, as they can only react to requests, without a view of upcoming releases and requirements.

Furthermore, test environments are expensive – underutilized test environments not only waste precious budgets but also don't allow for offsets that could otherwise be charged back to the consuming teams. Any test environment failure or outage has unknown impact that leaves teams in disarray and raises the overall risk profile of the projects. As much as 40 percent of testing time is lost due to test environment scheduling conflicts, unavailable test environments, or misconfigurations.

# How Plutora Environments Helps



Plutora test environment management provides pre-production environment management for enterprise IT teams. It gives internal and external environment teams one place to collaborate on and view environment bookings, allocations, configurations, and conflicts.

“Lost productivity through environment contentions and outages is costing us almost \$500,000 per year.”

Top 20 Bank

Plutora test environment management supports intake requests, environment change requests, environment allocations, conflict detection, and impact analysis (including highlighting releases impacted by environment failure) with complete notification options for stakeholders. It improves the quality, availability, and utilization of test environments by reducing costs and delays.

The Plutora platform provide integrated coordination based on changes to release schedules, integrated deployment plans, and unified reporting and insights into the overall status.

This simplifies the management of requests by providing a single system for all tracking. Standardized configurations can be automated to further minimize time required. Plutora Environments integrates with existing ITSM tools to help track the relationships between releases and environments. It also integrates with build automation tools such as Jenkins.

# Benefits

## ⊖ Single Source of Truth

Consolidate data from individual spreadsheets and make tracking available to internal and external teams. Track all test environments, configurations and availability schedules along with booking and change requests.

## ⊖ Increased Productivity

Use one system to track booking requests, change requests, and schedules with notifications and automation to eliminate manual processes. Integrate with release planning for automatic coordination. Enable higher environment reliability with simple scheduling for downtime and maintenance periods. Stakeholders are always up to date, whether they receive automated notifications or get information via the ITSM toolset integration.

## ⊖ Reduce Dev/Test Cycle Time

Many organizations spend more time getting large, complex enterprise environments up and ready for testing than they do writing code. Faster QA team access to test environments improves cycle time, which is especially important when dealing with critical fixes for sev 1 and showstopper issues. Plutora highlights when new code is available for an on-demand build, increasing test team responsiveness.

## ⊖ No More Contentions and Misconfigurations

Eliminate booking collisions with a consolidated scheduling and management system. Change requests include information of current and target versions. React quickly to outages and project rescheduling. The intelligent environment availability and allocation engine ensures the right environments are allocated to the right releases at the appropriate time to avoid misconfiguration or contention.

## ⊖ Optimized Spend

Improve test environment utilization to reduce the total number of environments. Predict trends to improve future hardware planning and resource allocations. Integration with automation tools such as Jenkins further improves time to value.

“Plutora improved our test environment management productivity by 140%.”

Martin Parker  
Senior Test Environment Manager, Boots

# Key Features

## Unified Schedule and Booking Engine

Minimize or eliminate testing time that is lost due to test environment misconfiguration, contention, or unplanned outages. The intelligent test environment availability and allocation engine ensures the right test environments with the correct configurations are allocated to the right releases at the appropriate time to avoid contention. Plutora eliminates duplicate data entry and continual reconciliation processes.

## Cross-Team Collaboration

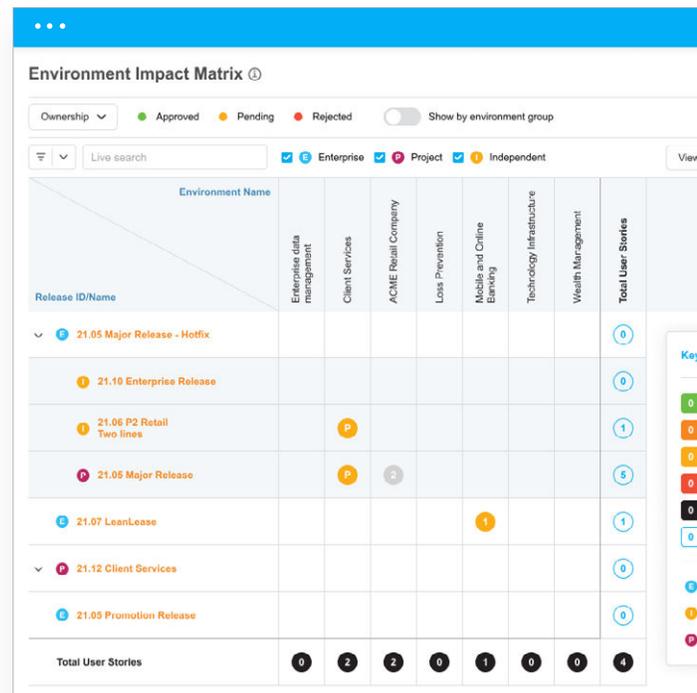
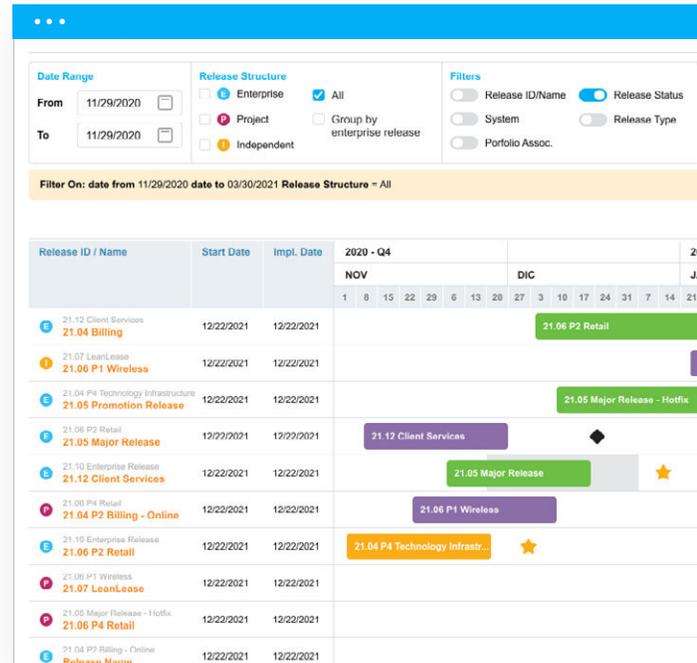
Automate communication, collaboration, and coordination between delivery teams, release teams, and test environment teams to eliminate manual, error-prone hand-offs. The comprehensive alerts and notifications system ensure all test environment stakeholders are aware when environments are requested, allocated, modified, and decommissioned.

## Enhanced Governance and Metrics

Provide test environment governance for detecting and remediating changes in test environments. Plutora continually tracks the relationship between releases, test environments, environment requests, and environment handovers over time to produce comprehensive test environment service metrics.

## Financial Management of Environments

Forecast test environment costs and cross-charge project teams for actual environment usage. Always have a full view of all environment utilization levels and optimize spend by consolidating environment usage and decommissioning underutilized environments.



## Toolchain Integration

Integrate with the toolchains already in use in your enterprise to allow teams to continue to work without disruption. Utilize existing ITSM tools such as ServiceNow and Remedy for change and incident management. Build automation tools such as Jenkins integrate with the test environment build process. ALM tools provide inventory and configurations. Environment information can also be integrated using a REST API.

## Expedite the Handoff of New Code from Dev to Test

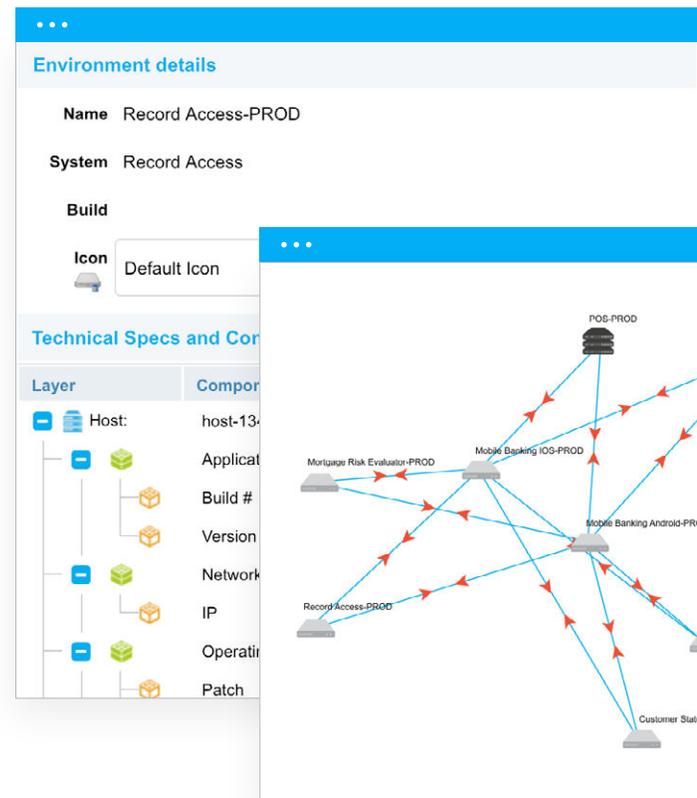
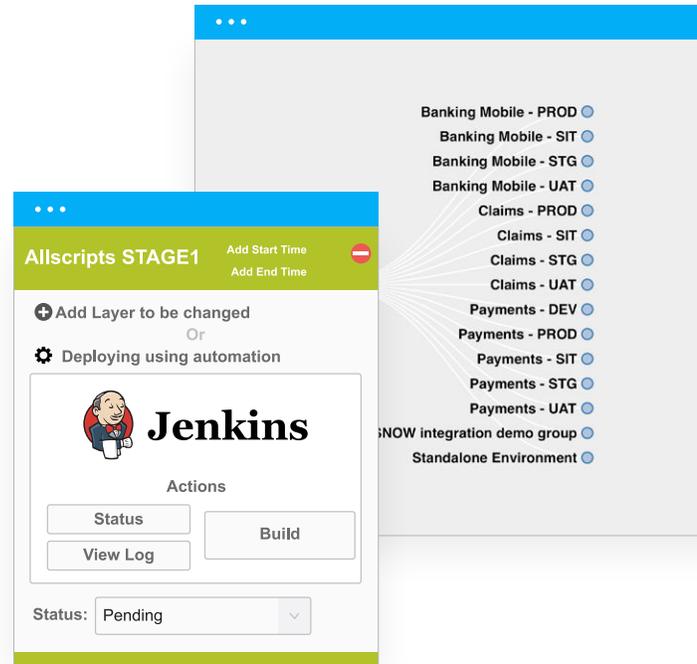
Don't make fast moving test teams wait for a test environment to become available. Plutora links Jenkins jobs to test environments, where a build is triggered on-demand to expedite the hand-off of new code from dev into test environments. New builds automatically link back to original change IDs so test teams can quickly associate new code commits with appropriate tests.

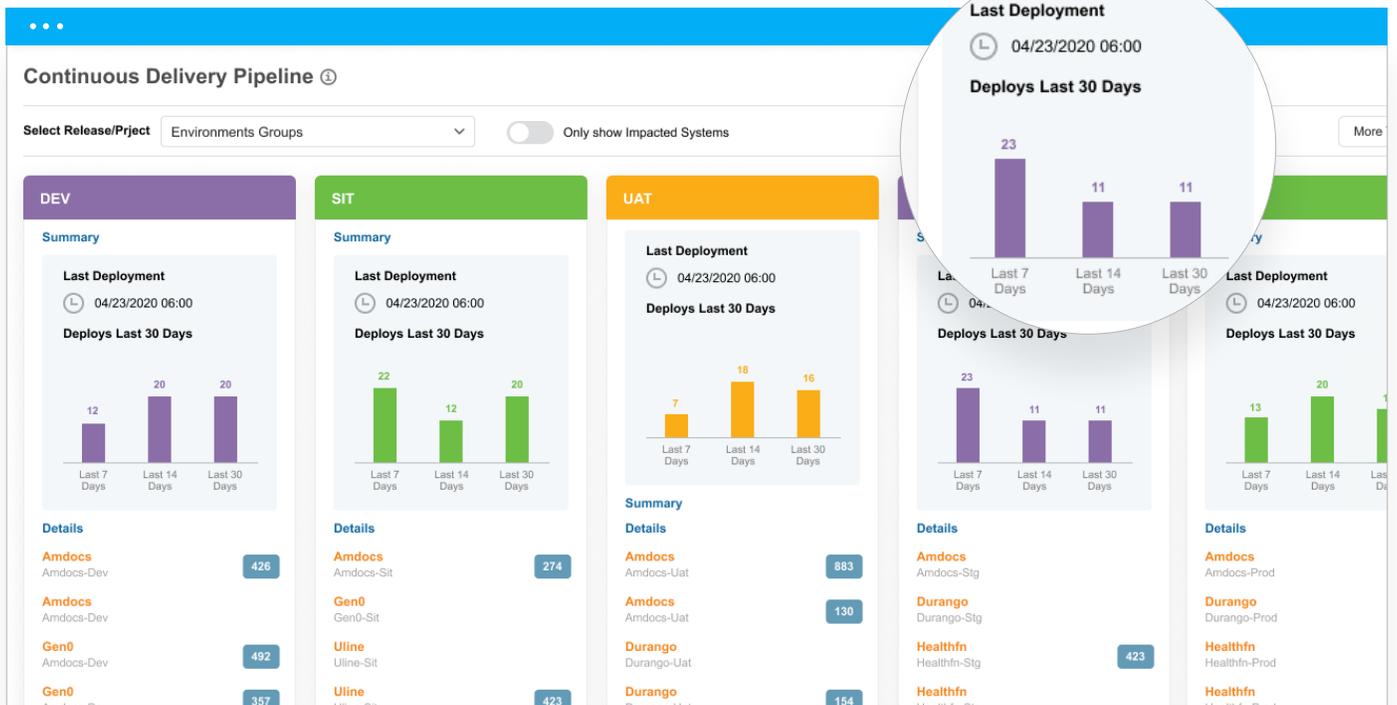
## Maintain Visibility of Fast Moving CD Pipelines at Scale

Many activities in the Continuous Delivery pipeline are not visible, hidden within the specialized tools of dev and test teams. This results in a large amount of release activity with limited visibility and coordination. Plutora provides a CD pipeline view so delivery teams can see where each change has been introduced, when versions were deployed, and what tests have been run.

“If you don't have proper environment management, then you don't have control over the baseline that you're testing against, which means it's more risk to your production.”

Environments Delivery Assurance Manager





## About Plutora

Plutora, the market leader of value stream management solutions for enterprise IT, improves the speed and quality of software creation by capturing, visualizing and analyzing critical indicators of every aspect of the delivery process. Plutora orchestrates release pipelines across a diverse ecosystem of development methodologies, manages hybrid test environments, correlates data from existing toolchains, and incorporates test metrics gathered at every step. The Plutora Platform ensures organizational alignment of software development with business strategy and provides visibility, analytics and a system of insights into the entire value stream, guiding continuous improvement through the measured outcomes of each effort.

**PLUTORA**

Learn more: [www.plutora.com](http://www.plutora.com)  
 Email: [contact@plutora.com](mailto:contact@plutora.com)