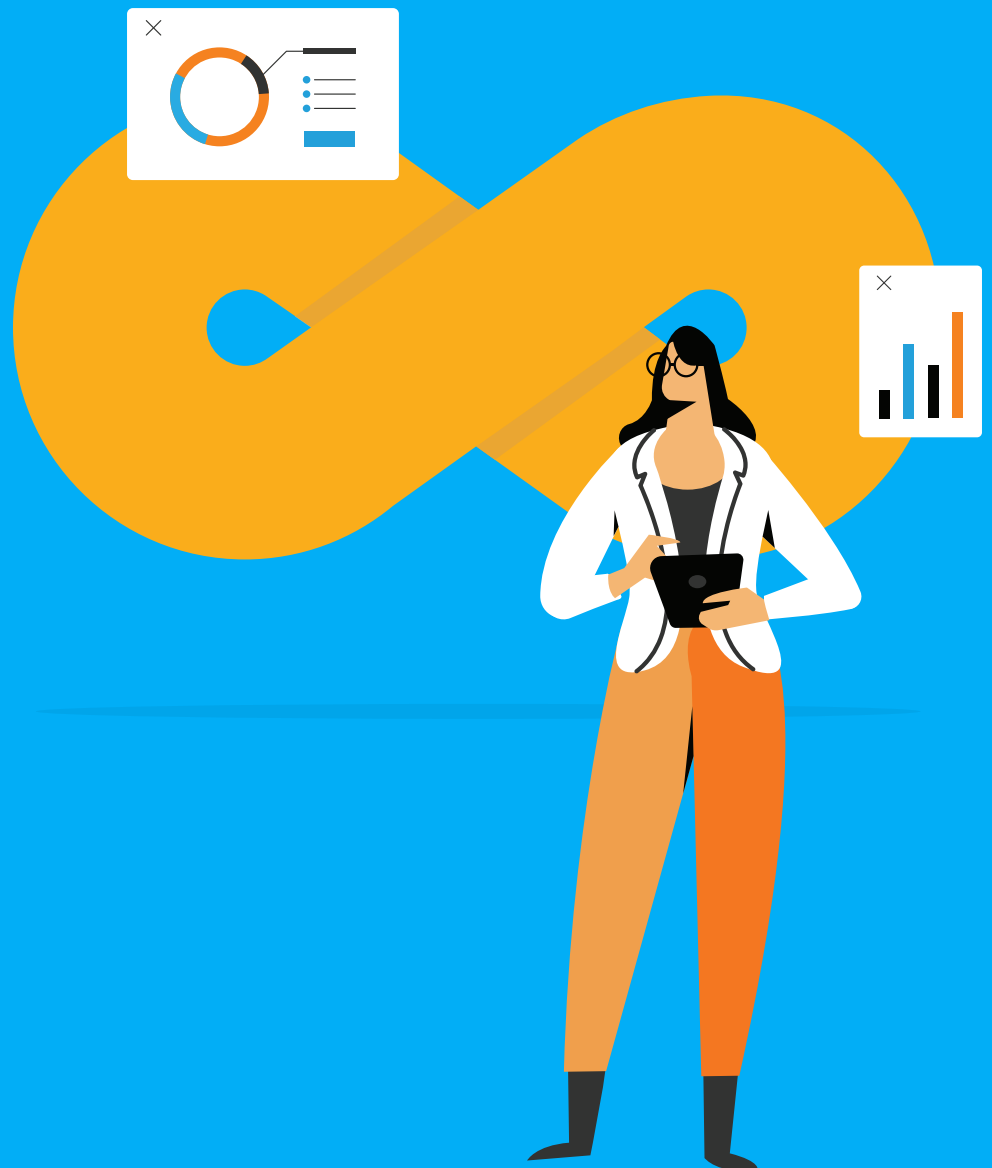


PLUTORA

SOLUTION BRIEF

Enterprise DevOps and Plutora

Plutora integrates with both legacy and DevOps tools in the enterprise – extending each tool’s value and better connecting it to the overall feature delivery process resulting in a converged toolchain.



Plutora Optimizes Value Stream Flow and Scales DevOps Adoption

Adoption of DevOps practices in large enterprises starts in pockets of the organization and can struggle to proliferate across all parts. Plutora helps scale DevOps across organizations.

As large enterprises adopt DevOps principles, the practices typically start in a small number of dispersed teams and it takes time and effort to spread the ways of working across the organization. Plutora accelerates DevOps adoption at enterprise scale by automating visibility into the enterprise's value streams. Integrating value streams' tooling expands each tool's value by connecting it to the value delivery process. This converged toolchain then accelerates the delivery of value into customers' hands. Management and orchestration standardize the process and analytics on top of a common data model which provides insights for value-based improvements during the DevOps journey.

Enterprises need to drive digital transformation by adopting agile and DevOps ways of working or risk being left behind by disruption. Command and control, bureaucratic cultures, compliance challenges and monolithic, legacy architectures are typically hindering factors of adoption. Plutora facilitates DevOps adoption at enterprise scale providing the business with a "catwalk over the factory floor", coordinating teams from ideation to value realization by integrating into existing toolchains and by providing a management and orchestration layer on top of those tools. Including cloud-based analytics enables a system of continuous improvement by answering the most important question of transformation: "Are we improving?"



Plutora facilitates DevOps adoption at enterprise scale providing the business with a "catwalk over the factory floor."

Problems in Scaling DevOps

The goal of DevOps is to deliver better value outcomes faster and more safely by unifying activities and (development and operations) teams across end-to-end value streams (products or services).

This is achieved through improved collaboration, often through small, multi-functional, autonomous teams, working in small increments and automating manual tasks.

Enterprises face unique challenges not found in smaller companies including tightly coupled architectures, tightly integrated COTS, large and diverse portfolios of applications – many of which have been built many years ago or acquired. These systems are supported by both internal and external resources who are frequently geographically dispersed. While internal teams can mandate a development methodology, external teams integrate code in a series of stages, or route-to-live (RtL), including integration, staging and finally production. These delivery stages create extra problems such as coordinating and managing test environments at scale. Each environment instance is complex with an inconsistent mix of technologies, servers, middleware, databases and communication layers so test and staging environments are rarely production-like, which means that testing can't be trusted and the live environment is unpredictable.

As development teams adopt agile methods, it places increasing pressure on already constrained IT operations resources, shared environments and test data. The enterprise is already stressed with a high degree of dependencies as projects must move in concert with each other to deliver value to the business. Whilst enterprises must tackle these dependencies by breaking them and moving towards loosely coupled organizational and system architectures, this takes time, and making changes with the intention of improvement can carry risk of failure. Failures in production carry significant potential financial, legal and customer perception risks so enterprise teams need to find ways to experiment and test changes early and assure they operate as intended when they reach the live environments. They need ways to mitigate the risk to production and to learn from the wisdom of production.

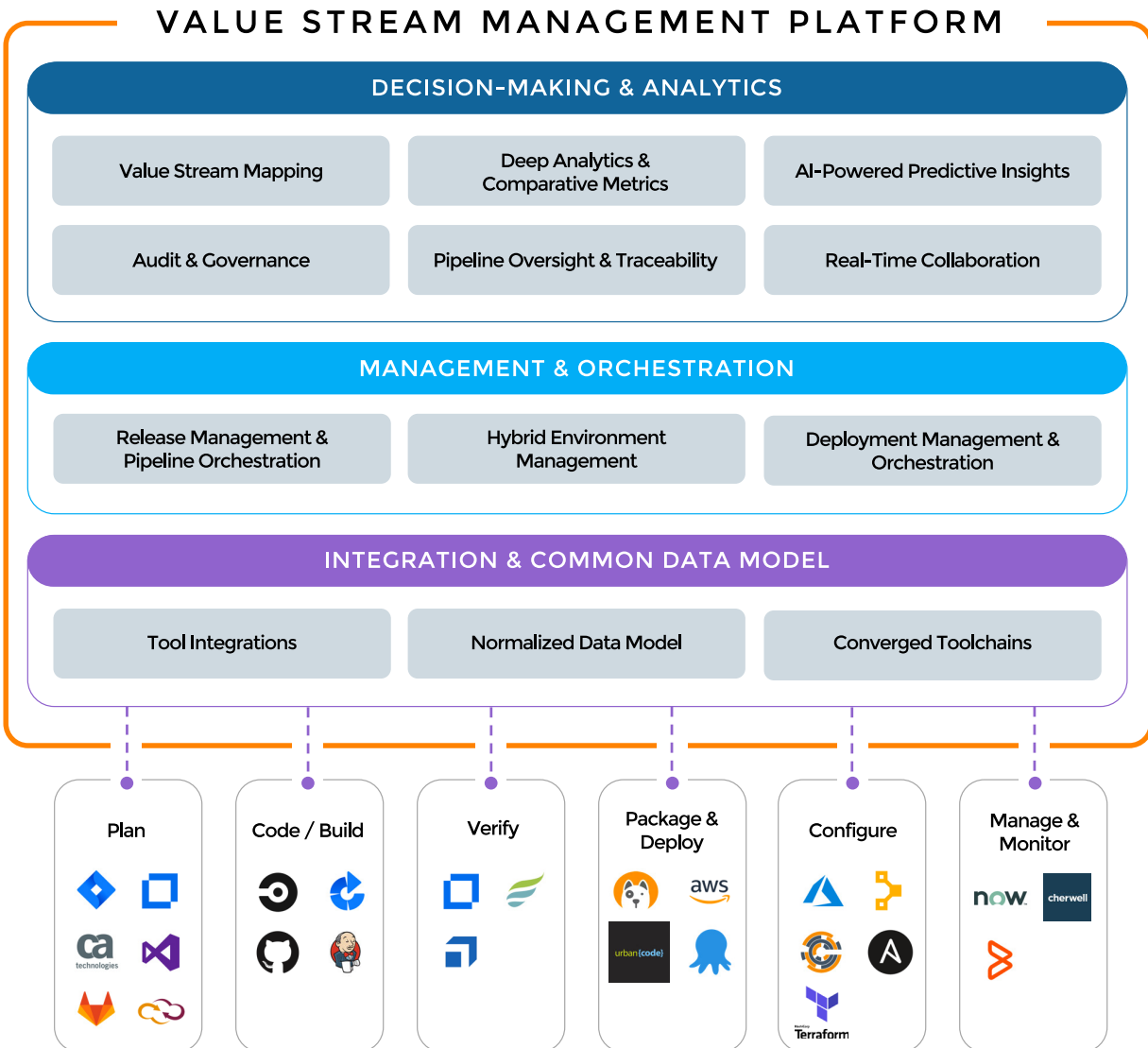


Enterprise teams need ways to mitigate the risk to production and to learn from the wisdom of production.

DevOps at Scale with Plutora

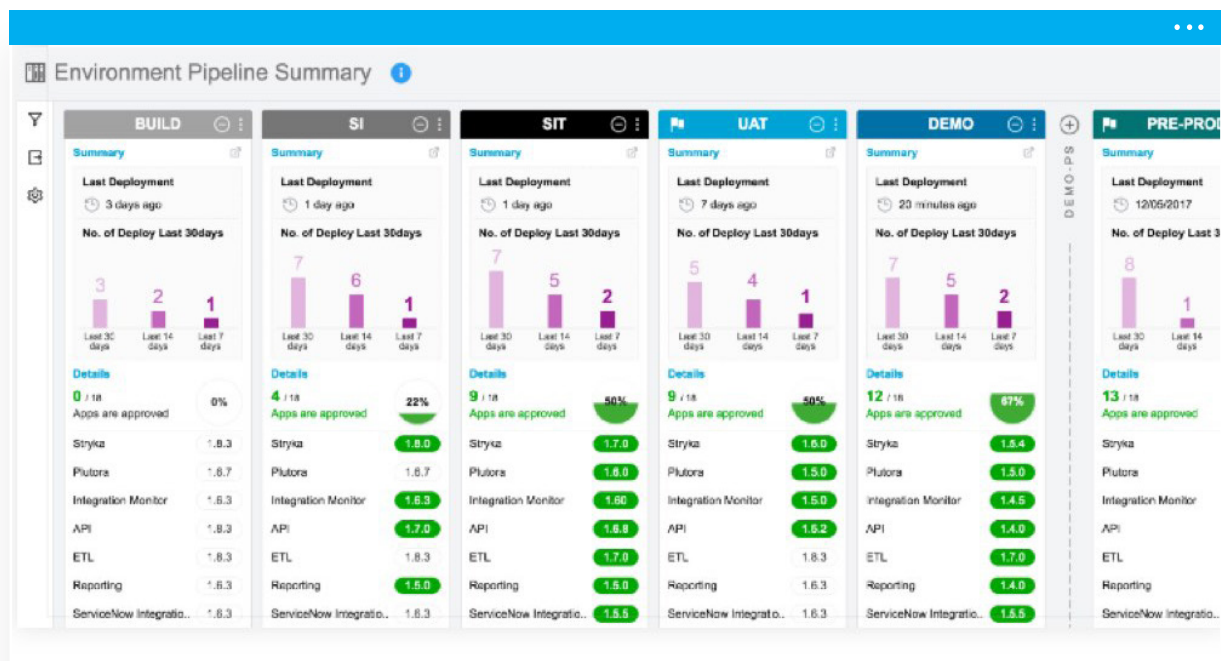
Plutora enables organizations to transition from project centric, large batch ways of working to value stream oriented, incremental ways of working.

By correlating data from existing DevOps toolchains combined with modules to manage releases, test environments, and deployment activities, Plutora evolves the continuous delivery process. The orchestration of automated and manual software release pipelines provides a single view of releases and associated flow metrics allowing teams to inspect the performance of their value stream, identify constraints and adapt to make improvements accordingly.



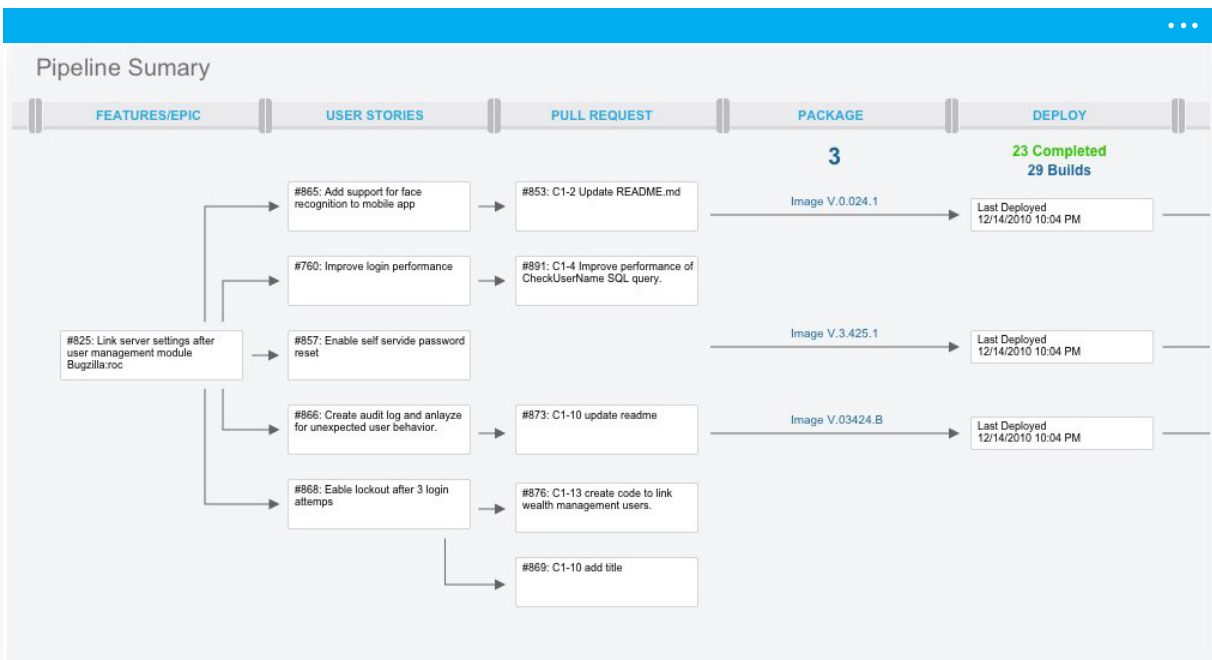
Plutora enables DevOps at scale by making it possible to add governance to any pipeline, sharing responsibility between development and IT operations regardless of development methodology, technology stack or the service transition process required. Geography, vendor involvement, technology stack, heritage portfolio, on-premise vs cloud and code ownership are made transparent by having connections to each relevant system and a robust orchestration and collaboration engine.

Shared test environments are managed in a single location with full information regarding application impact, schedules and coordination with release pipelines. Quality information is continuously available for both manual and automated testing and also for both functional and non-functional testing. The entire dataset is combined into a cloud-based analytics engine for complete insights into the entire process from idea to value realization that drive ongoing improvements during the enterprise's DevOps transformation and help the teams reduce risk of failure as they transition to new ways of working.



Continuous Compliance and Automated Audits

Plutora blends the agility of DevOps with Governance, Risk and Compliance (GRC).

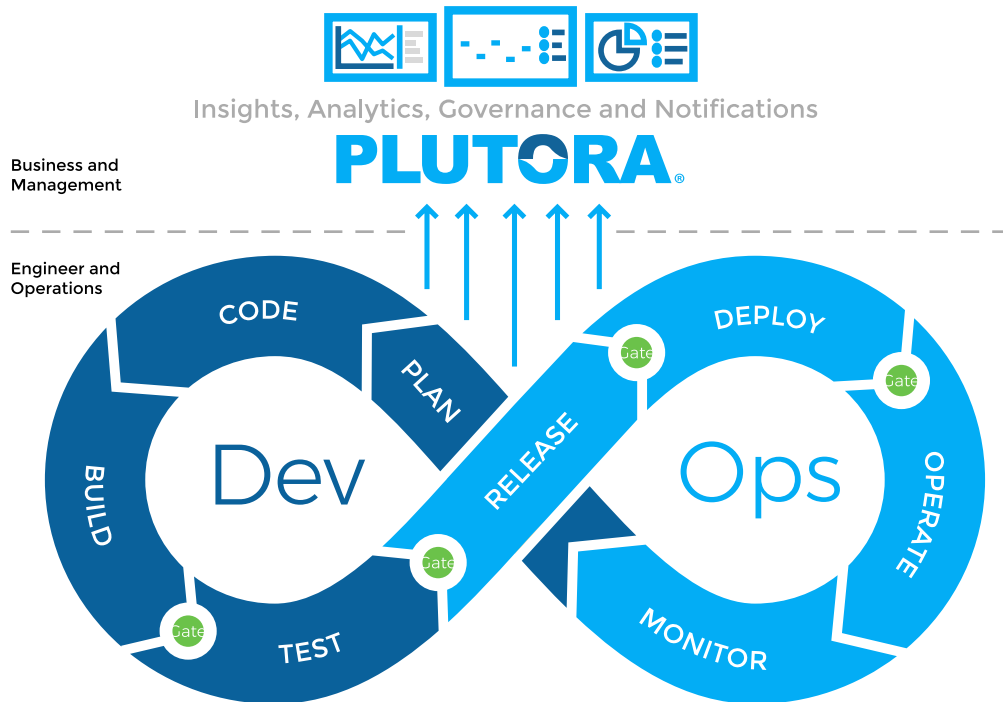


Each phase of the value delivery cycle includes a series of criteria-based entry and exit gates which ensure that business and compliance objectives are met prior to moving forward. Gates can be a mix of automated and manual criteria and include robust stakeholder notification. Manual release and deployment pipelines are orchestrated together with automated deployments to ensure consistency regardless of automation maturity. Automating what typically exists as checklists in an enterprise means that teams can achieve continuous compliance and audits become automated, removing a significant workload from the teams and allowing them to be more productive and innovative.

Adding Visibility to Autonomous DevOps Teams

By mapping data across teams into a common data model and repository, Plutora provides natural visibility between fast moving value stream teams to track progress of features, dependencies and integration environments.

In this way, progress of cross team initiatives can be tracked in a single location. Leadership can be confident of progress and improvements can be measured as the enterprise improves its DevOps capabilities. And because leaders have visibility and are confident, they can allow the teams more autonomy and focus on helping them self-discover improvements, rather than manage them - one of the goals of enterprise DevOps culture.









Transparency Through DevOps Toolchains

Plutora connects application builds, CICD pipelines and environments together providing a unique view of application progress where any application version can be mapped to a non-production environment where code converges prior to delivery into production.

Using the common data model to connect all parts of the end-to-end DevOps toolchain, from idea to value realization, including engineering and IT operations tooling, allows teams to track Product Backlog Items (PBIs), measure their flow and identify bottlenecks to target for flow improvement. The value of the toolchain becomes greater than the sum of its parts. The list of tools below represents a subset of the types of tools and the value added by Plutora in the integrated solution.





Application Lifecycle Management

-  Atlassian Jira
-  CollabNet VersionONE
-  Micro Focus ALM
-  Azure DevOps
-  CA Agile Central
-  GitLab

Code & Build

-  Jenkins
-  CircleCI
-  GitHub
-  Bamboo

Testing

-  Tricentis qTest
-  Tricentis Tosca
-  Micro Focus QC
-  Smartbear Zephyr

Release & Deployment



Octopus Deploy



IBM UrbanCode



AWS CodeDeploy



DeployHub

Security



Microsoft



Ping Identity



Okta

Provisioning



Ansible Tower



Chef



Puppet



Microsoft Azure

Operations



BMC Remedy



Cherwell



ServiceNow

Measuring DevOps Transformation Progress

Data across the toolchain is combined into interactive dashboards enabling a consistent method for tracking team progress and comparing portfolio efficiency.

Over time, value stream teams and leadership can see how deployment frequency, lead and cycle times, change fail rate and Mean Time To Recover (MTTR) are improving across teams and the enterprise as DevOps capabilities improve. These success stories can be shared so local improvements become global improvements and the transformations successes feed ongoing investment in time and energy that leads to the enterprise becoming, or sustaining its position, as a high-performing organization.



Epics and User Stories

Tools, like Atlassian Jira, track each team's epics, user stories and non-functional requirements or Product Backlog Items (PBIs) to be implemented by development. In the enterprise, individual teams lack perspective of the requirements related to the overall project scope and they lack complete understanding of inter-team dependencies – both time-related and functional. Any visibility provided to the business must be created manually and is out of date almost as soon as it is produced. Any cross-project rollup is less frequent and even more time-consuming. Plutora maps a relationship between a release and user stories and augments it with quality data, a systems impact matrix and associated release schedules. This provides a single view for leadership, development and operations. Engineering teams use that visibility for scope, architecture, and delivery timing coordination. Internal and external teams work together seamlessly under the unified system. Leadership has a real-time view into the engineering process and can implement criteria gates for each stage to ensure compliance to critical success factors.

Monoliths and Microservices

Organizations use microservice based architectures to break dependencies and create loosely coupled products that are purpose built to be tested and updated at speed allowing for incremental product updates.

But transitioning from monoliths to microservices can be a long and sometimes dangerous road, even when using practices like the strangler pattern. Breaking applications down into smaller pieces that can be updated independently has its advantages, it also can create more complexity. Many organizations adopt tools such as Kubernetes to help manage all the moving parts. In the enterprise, microservices are just like any other application with environment, quality and deployment demands. It is not uncommon for changes to legacy applications to require changes in other microservice components in an enterprise hybrid environment, particularly as an enterprise transitions from one architecture to another; it's conceivable that a hybrid monolith and microservices state could be permanent or certainly long term. Plutora supports the tracking of containers to applications and interdependencies.

Defects

Tools, such as Atlassian Jira, are used to track defects and issues in the code. Each engineering team's project includes customizations which make it difficult to roll up into a single view that spans projects. Unless manually exported and correlated, the business lacks visibility into the quality of a release train and proposed impacted systems. Release managers manually evaluate project stability and risk by mapping defects to projects, releases and systems.

Plutora helps coordinate legacy and microservice projects together, ensuring proper quality and timing of the release.

Test and staging environments with appropriate test data are scheduled for configuration for both projects. Deployment plans are orchestrated with both manual and automated steps. With Plutora, quality information is included by mapping it to projects, systems, and releases, providing an end-to-end view of the nature of a release. Test information is always real-time to help release teams understand the risk of upcoming changes and agility for at-risk projects.

Continuous Integration

Jenkins is the most common CI server that kicks off builds, unit tests and deployments at key events (such as check-in) or on a periodic basis. IT environments rely heavily on the automation and associated plug-ins during deployment to test and production environments. In the enterprise, regulatory and risk management often require business approval for releasing features to production. In addition, deployments often require coordinated efforts with legacy, non-automated tasks that must be performed in an exact sequence. As a development tool, usage of Jenkins is typically limited to the engineering team.

Plutora integrates with Jenkins to provide the business and leadership better control over the release process.

Release and deployment management define deployment plans that include both automation with Jenkins and manual steps coordinating them in the exact sequence required. Plutora Environments also utilizes Jenkins for the build and verification of each environment instance to ensure correct configuration. Each Jenkins job's resulting status is returned in Plutora to ensure stakeholders are up-to-date.

Operations Ticketing and the Service Desk

ITSM tools such as ServiceNow have deep processes which ensure consistently available production environments and support change and incident management. In the enterprise, they are considered a critical path for almost every production code delivery which limits many engineering teams' ability to accomplish the "ops" portion of DevOps. Change requests arrive late in the cycle and don't allow operations to do much more than just react to the incoming request and lack any real, quality information.

With Plutora, release schedules are visible from inception to production with deep integrations for change requests and deployment plans.

This allows engineering involvement in deployment processes orchestrated by the release and operations teams. Plutora deployment plans orchestrate with both internal ITSM tools and external teams for coordinated delivery.

Conclusion

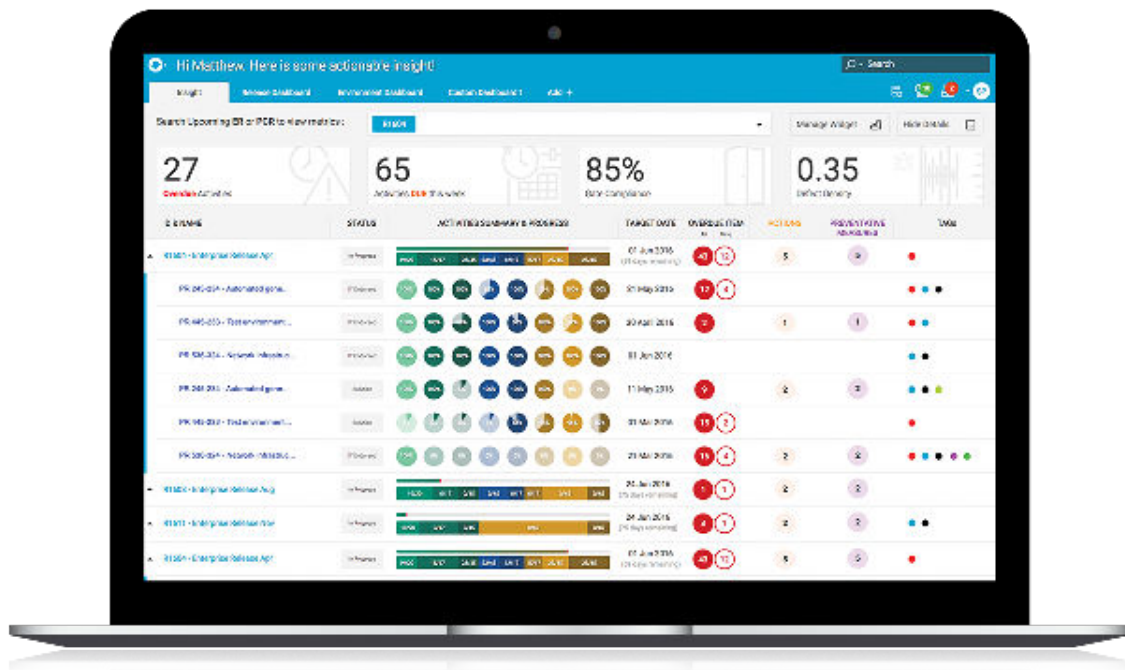
Without Plutora in the enterprise, DevOps is functional only in selected applications or release pipelines of the organization.

With Plutora, development, IT operations, product planning and portfolio, change and release management are maintained in alignment with the business and work together in a more efficient fashion that is not possible otherwise. Manual coordination and processes are replaced with automation and collaboration. The business can get complete visibility with real insights into all aspects of the value stream flow.



Plutora replaces manual coordination and processes with automation and collaboration.

One critical feature, Plutora Insights, is available out-of-the-box as a drill-through release and test dashboard. Plutora Insights provides a single pane of glass into the value stream, showing how releases and quality perform across key health indicators (for instance, test execution data) for stakeholders such as CIOs, PMs, release and test managers, VPs of apps, IT Ops, and business stakeholders. Having this visibility into all value stream's DevOps performance and capability means that progress throughout the DevOps journey can be measured and continually improved.



PLUTORA®

Learn more: www.plutora.com

Email: contact@plutora.com

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.