Rocket

How to Orchestrate DevOps Value Streams

Organizations are adopting DevOps to shorten the development lifecycle and enable continuous delivery of software – but how can they ensure these improvements map to more value for the customer?

Enter: Value stream management and orchestration.

What is Value Stream Orchestration?

Value stream management aligns development and delivery processes with business objectives to ensure end users receive the value or solutions they require. But value stream management needs powerful orchestration that connects all platforms, from mainframe to cloud, for a true end-to-end view.
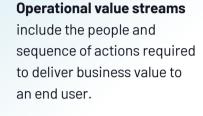
Value Stream: n.

The sequence of events required to deliver customer value.

There are three kinds:

01
Development value streams include the people and sequence of actions required to develop solutions that provide business value.

02
Operational value streams include the people and sequence of actions required to deliver business value to an end user.
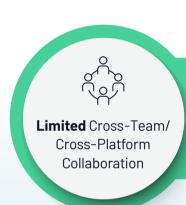
03
DevOps value streams involve everything from development and delivery to production. They include loops for Agile development cycles, use many tools and require human intervention in several steps.

Current Barriers with Workload Automation

Limited Cross-Team/Cross-Platform Collaboration

Suboptimal Delivery of Value

Technical Limitations and Manual Intervention

The Building Blocks of DevOps Value Streams

Automation
IT pros must ask several questions to ensure a task is automated correctly: When should the task run? Are there variables affecting when it should run? What files need to exist? Should other tasks be completed first? Does this task take up resources that would prevent other tasks from running? DevOps VSM should provide the answers.

Orchestration
Orchestration connects the complex interrelationships that enable the automation of a complete value stream. When it comes to DevOps, orchestration must be sophisticated enough to address both the technical intricacies of task-level workflows and the high-level view of value-generating processes spanning several technology stacks.

Visualization
The visualization of automated workflows helps data engineers remember how each process was choreographed, understand the impact of new changes and make adjustments properly. Enterprises can optimize thousands of workloads across value streams, increasing the value they deliver to customers at scale.

Integration
Value stream management and orchestration platforms integrate with best-of-breed DevOps solutions, including Kubernetes, Docker, Ansible, Chef, Puppet, Terraform, Selenium and ServiceNow. When enterprises deploy several opensource DevOps tools, it creates a DevOps toolchain. Integration with DevOps toolchains are vital for success.

Governance
Value stream management and orchestration platforms should simplify governance – centralizing configuration, visibility and management of simple and complex value streams – across all platforms and applications, and **from the mainframe to the cloud**.
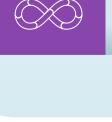
Reporting and Analytics
A DevOps VSM platform should include a dashboard with the real-time status and progress of each value stream, showing where there are failures, where areas are running slowly and where there is room for improvement. Administrators can correct errors impacting execution and deliver value faster.

DevSecOps and a Single Point of Control
A fully automated DevOps environment should be orchestrated from a single point of control. To combat risk, "DevSecOps" should also be built in at every step. DevSecOps ensures security is part of the development process to automatically detect any changes from source to destination.

To compete in today's market, your enterprise must view everything through the lens of creating customer value.

DevOps value stream management and orchestration ensures your development and operations efforts deliver the biggest return possible at every step of every process.

ASG-Enterprise Orchestrator offers the workload automation, value stream visibility and DevOps toolchain coordination enterprises need to optimize the creation and delivery of end-user value – from mainframe to cloud.