The Model-Driven DevOps Pipeline - Electric Cloud

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Don’t get trapped in a black box of mystery

The pipeline is the product of DevOps

The pipeline is the foundational construct of the DevOps toolchain, connecting tools, teams and processes with a visual and flexible collection of automated phases that allow secure, consistent, and compliant promotion of software releases across stages. Pipelines automate and orchestrate the sequence of deployment of a version of an application to an instance of an environment, where the instantiation of the environment and the assembly of the application is guided by processes. Stages represent the phases, including processes and environments, such as development, testing, staging and production. Manual or automated approval gates speed releases through the pipeline in a managed and auditable way. Models encompass the application, including artifacts and components; environments including stacks; processes as workflow and/or domain specific language (DSL). This is the what, where and how of deployment. Treat the **pipeline as a product**, with versioning, testing and production grade readiness, and you’ll have a foundation for DevOps success.

Models are the keys to reuse and flexibility

Considering how critical pipelines are to the successful continuous delivery of software, the choice of implementation can have a tremendous impact on the sustainability and reliability of the application lifecycle. We’ve had an evolution from run-books to scripts to models, from manual tasks to reusable modular patterns, replacing brittle scripts with powerful, reusable abstracted models that enable modular patterns, replacing brittle scripts with powerful, reusable abstracted models that enable **predictable, repeatable automated deployments for any workload to any environment**. Models provide a flexible abstraction of each of the elements in the pipeline and can be assembled in various combinations to reflect the stage appropriately.

Models shouldn’t obscure or force a black-box mystery. Abstractions shouldn’t reduce visibility and control. You must be able to **on-board applications quickly** defining pipelines and releases using a standards-based DSL for automation that is versionable, testable, reusable and refactorable. Workflows should be a visual representation of the DSL, and you should be able to toggle between visual models and DSL right from the UI to quickly make changes or fixes to your applications or pipelines in the DSL code (a quick search and replace), and then toggle back to see the results immediately in the model. You can work in the mode that is most comfortable, GUI or DSL, so nothing is hidden. Save time and drive standards by promoting a library of common, reusable models which are flexible and transparent. No black boxes or mystery.

Visibility and control at scale

Adaptive Release Orchestration is the ElectricFlow approach to achieving reusable and composable pipelines based on models that are assembled to encompass the what, where and how aspects of the deployment. Regardless of whether your application portfolio includes monolithic applications with legacy architectures on classic mainframe or distributed systems, or has cloud-native containers or serverless microservices, the models are adaptable and flexible to encompass and evolve with your business. It’s important to understand that ElectricFlow provides **both visual and as-code** representations of the models that comprise the pipeline and all its elements. This is critical as it provides **full visibility and control at a granular level**. Mystery solved.

Release on Business Demand

ElectricFlow allows your enterprise to release on business demand and increase IT efficiency with pipeline automation, detailed release metrics, and centralized control over DevOps environments, processes and tools. You will predictably deploy any application to any environment at any scale, and manage release pipelines and dependencies across multiple teams, point tools, and infrastructure. ElectricFlow provides a comprehensive new way to **plan, schedule, and track releases, all based on models for in-depth visibility, granular control and reusability**. ElectricFlow is the Adaptive Release Orchestration platform that enables teams to implement fast and adapt easily for unprecedented insight and control of all types of releases – at any scale.

Learn more

Join Sunil Mavadia, Global Head of Customer Journey at Electric Cloud and Thomas Stocker, Director of Product Management at Tricentis to learn why model-driven test automation is the ideal complement to a model-driven continuous delivery pipeline.

A Best Practices Webinar:
Beyond the Script Apocalypse
Model-Driven Pipelines and Test Automation

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