Today’s Application Deployment Challenges

Even as Agile and cloud adoption have increased the pace at which applications are developed, deployment of these applications remains slow and difficult, often taking days to deliver a finished application to end-users.

Today’s applications are multi-component, multi-tiered, and the processes to deploy them are complex, manual, or driven by ad-hoc scripts, making deployment an error prone, slow, and unreliable process. Each application is deployed several times as it moves through the application delivery pipeline—in development as teams package deployment artifacts, in QA as test engineers test the application, in pre-production as the applications are accepted, and in production as the application is rolled out to users.

Application teams need to test their deployment processes starting in development environments to minimize surprises in production. They need an integrated, automated approach to speed up deployment times from days to minutes. Teams also need end-to-end visibility from development to deployment to audit, troubleshoot, or recover from these complex steps if a deployment fails.

Key Benefits

- Faster deployments to improve time to market
- Consistent quality & reliability
- Improved visibility & transparency
- Reduced operational costs
- Collaboration across silos

From Dev to Ops
Why Automate Deployments?
It is difficult to standardize and automate deployments for something that is constantly changing. ElectricFlow Deploy automates and standardizes application deployments throughout the software delivery process to reduce delivery cost, increase quality, reliability and traceability, and accelerate time to market.

Model-Driven Approach
ElectricFlow Deploy allows teams to centrally define and manage application and environment details (e.g. Dev, QA, Prod) and manage resource pools, environment specific properties, as well as tier specific failure thresholds to enable application-centric resources management.

Application Model captures the complex collection of components associated with an application including file sets, scripts, configurations, and processes. This enables the deployment team to treat this collection as a single application unit as it moves through the application delivery pipeline.

Application Workflow Model captures the processes needed to deploy and recover applications. It enables users to easily model complex processes, including 3rd party integrations and component dependencies, using an intuitive drag-drop-wire interface. Defines and automatically coordinates deployment cross-dependencies between complex application tiers.

Environment Model Powerful properties enable the application to automatically adjust to different environments at deployment time, saving script specialization and maintenance overhead. This model captures specific details such as server parameters, environment configurations, etc. for the specific environments where an application might be deployed such as development, QA, or production.

The ElectricFlow Deploy model-driven approach reduces the variability of application deployments, enabling delivery teams to reliably and more rapidly deploy applications. Predictable push-button deployments are essential throughout the application lifecycle. ElectricFlow allows DevOps teams to make deployments fast and simple.

Making Deployments Fail-Safe
ElectricFlow Deploy helps minimize the likelihood and potential impact of deployment failures in production through its unique fail-safe features:

Code-safe features offer run-time troubleshooting capabilities for deployments. This enables application delivery teams to set break points, skip steps, step-through, and resume in-flight deployment processes. Code-safe enables application authors to zero in to the most accurate and proper application and workflow model for successful deployments to production environments.

Run-safe features let teams define success and failure thresholds for application deployments per tier. Modeling failure thresholds enables application delivery teams to define when a deployment should continue despite failures in a given tier. This allows deployments to complete partial deployments successfully. For example, if 3 out of 10 servers in the web tier fail to deploy but the application works acceptably, then the rest of the deployment would be allowed to complete.

Recover-safe features enable application delivery teams to easily recover from partial failures with a single click, as well as to pre-define what actions should be taken in the event of different failures. These recover-safe retry policies enable run-time failure management capabilities such as auto-pause and alert on failure, auto re-run, and auto abort and recover or rollback.

Pipeline Dashboard
The ElectricFlow Deploy pipeline dashboard lets application delivery teams track progression of their application snapshots through the pipeline, enabling them to track which snapshot is deployed to which environments. This centralized visibility and control of application deployments lets the team manage and track application release processes across teams involved in the end-to-end application delivery lifecycle.

Enterprise Grade DevOps Deployment Solution
ElectricFlow is a robust enterprise-grade, end-to-end DevOps deployment solution. With hundreds of out-of-the-box integrations to essential software development, middleware, and infrastructure management tools, Electric Cloud provides a complete solution to develop and deliver applications across physical, virtual, and cloud environments. As software applications continue to grow in importance, the ability to quickly, reliably, and continuously deliver quality software is a critical part of an organization's ability to deliver business value to their customers.

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