Automic® OpenStack Action Pack

Key Benefits

• Ease the efforts of developers, application engineers, and system administrators to create, deploy, and run applications by automatically provisioning or de-provisioning OpenStack environments or servers as part of continuous delivery release automation workflows or pre-approved, self-help runbooks.

• Ship code and an environment server as one coherent, deployable package that can be automatically promoted to or matured into production.

• Standardize an OpenStack best practice for application deployments and avoid expensive cloud sprawl.

Key Features

• Provides the highest level of scale to meet enterprise demands. Support for 500k-to-1 deployment endpoint on a single clustered server.

• Offers out-of-the box action packs for generic deployment tasks or runbooks and application platforms, including leading database, middleware, Web server, messaging, SaaS, and PaaS platforms.

• Provides tight integration with application lifecycle management tools.

• Leverages your existing open source software investments in skillsets and tooling, and extends the reach of OSS tools by including them within automated continuous delivery release automation workflows and pipelines.

Overview

The Automic® OpenStack Action Pack allows users to build, provision, configure and manage servers in a public or private cloud managed by OpenStack. CA Technologies, a Broadcom company, provides OpenStack integration for Automic Continuous Delivery Automation and Automic Service Orchestration. The solution allows you to build visual workflows that include OpenStack compute services as part of a deployment or release process, giving valuable time back to developers and administrators but also assuring that fewer errors occur.

Business Challenges

Today, applications and data are stored or hosted in the cloud. The cloud allows companies to pay for only what they need, when they need it, and to provide their employees with access to these systems from anywhere, at any time during the day or night.

Cloud computing requires that a computing platform exist *out there* in the cloud, on which these remote apps can run. A number of cloud platforms are available from different vendors, including Amazon, Microsoft Azure, Oracle, IBM and Google, among others. OpenStack software controls large pools of compute, storage, and networking resources throughout a public or private cloud platform, managed through a dashboard or by the OpenStack API. OpenStack works with popular enterprise and open source technologies, making it ideal for heterogeneous infrastructure.

With companies using thousands, or hundreds of thousands, of VMs under OpenStack, it is critical that these computing resources are not siloed or confined to separate environments or teams. To maximize the benefits of OpenStack and reduce its potential complexity, OpenStack needs to be embedded within the automation mechanics of a continuous delivery release automation pipeline or self-help service orchestration.

Solutions Overview

The Automic OpenStack Action Pack combines an integrated application packaging system, smart deployment models and out-of-the-box actions for common deployment tasks with robust workflow design and high-volume execution capability.

The Automic OpenStack Action Pack allows users to build, provision, configure, and manage servers in a public or private cloud managed by OpenStack as part of an automated application deployment process or as a pre-approved, self-help process.

Key Features (cont.)

- Provides support for all popular deployment strategies, such as canary, blue-green, rolling, and dark launch strategies.

- Fully orchestrated service delivery across all departments at the push of a button.

- Single point of control for full-stack service delivery.

- Rapid, reliable service delivery on premises, in the cloud, or in a hybrid environment, without the delays or the errors caused by manual tasks and handoffs.

Solutions Overview (cont.)

Optimized for enterprise environments, the Automic One Automation Platform accelerates deployments to OpenStack environments, ensures the quality of deployments, and minimizes management overhead to help both development and operations enable business growth.

Critical Differentiators

The the Automic One Automation Platform includes the following critical differentiators:

- **The largest scale**. Support for 500k-to-1 deployment endpoint on a single clustered server. Automic Continuous Delivery Automation is the only tool that provides this level of scalability for a single installed instance.

- **The broadest scope**. Support for the entire IT portfolio, including mainframe to microservices and everything in-between, while packaged apps, such as Siebel, are also supported. With Automic Continuous Delivery Automation, the entire IT portfolio is empowered to drive measurable results to the business.

- **The Automic One Automation Platform**.

  - Plug-ins with the broadest platform and environment support in the industry, from mainframe to microservices, and everything in between.

  - Workflows are decoupled from any environment setting, credential, permission data, or content that they execute

  - Plug-ins for popular database, middleware, Web server, messaging, SaaS, and PaaS platforms.

  - Automatic rollback lets you recover quickly and safely when things go wrong.

- **Out-of-the-box OpenStack Actions**. Continuous delivery release automation workflows are assembled from a library of built-in actions, which replace manual deployments and scripts. The library consists of hundreds of actions for generic deployment tasks, including the following tasks:

  - Get authentication token action
  - Create server snapshot action
  - List servers action
  - Check server status action
  - Get server details action
  - List snapshots action
  - Create servers action
  - Delete server action
  - Change server state action
  - Assign or remove floating IP

- **The deepest compliance and audit support**. Beyond visibility into the who, what, when, where and how of every deployment, the solution provides insight into what was changed outside of its control or purview. A unique snapshot mechanism lets you compare configurations and file contents between live deployment endpoints. Snapshots also enable you to spot any changes made to apps outside of your automation mechanics.

Critical Differentiators (cont.)

- **Automation-as-code**. Modern cloud infrastructure is described and managed as code, and modern DevOps and continuous delivery release automation teams work in code. The role of code has moved beyond developers. Automic Continuous Delivery Automation provides as-code capabilities allowing you to ensure an automation standard across the enterprise with minimal adoption and process friction.

- **Support for open source software**. Automic Continuous Delivery Automation provides a very large, and ever-increasing, set of pre-built integrations. These integrations allow every team across the enterprise to use the OSS tooling that best fits their skill set and their needs, while still providing the enterprise with an automation standard that delivers bottom-line financial results to the business.

- **Interface and adoption flexibility**. Automic Continuous Delivery Automation empowers development, QA, and ops with self-service capabilities that leverage a flexible interface layer. UI, API, or Web services allow all DevOps knowledge workers to access pre-built functionality, such as provisioning a multi-cloud environment or to interoperate with your deployment pipelines, in the manner most comfortable for them. This interface flexibility leads to higher productivity output from your SDLC personnel.

- **Continuous delivery release automation or service orchestration powered by a pervasive automation platform**. The Automic One Automation Platform allows automation to become pervasive throughout the enterprise by incrementally replacing multiple spot tools with a standard automation platform. A standard automation platform enables the businesses to scale investment across people, processes, and technology. The Automic One Automation Platform executes core business, application and infrastructure processes, whether on-premises, in the cloud, or for hybrid environments , providing visibility and control across the entire business.

For more information, please visit broadcom.com/automation.