Technical white paper

HP Continuous Delivery Automation 1.10

What's new

Table of contents

Self Service Portal

Flexible Application Modeling

Feature description	HP CDA provides a flexible, model-driven application release and deployment platform where users can define application components independent of infrastructure, and deploy an application in different environments as it progresses through its lifecycle stages.
Technical description	HP CDA supports flexible application modeling, which allows customers to use a single tool to manage an application from development to production. Geared toward enabling better development, test and DevOps efficiency, HP CDA provides a model-driven application release and deployment management platform on which you can model all aspects of application setup and monitoring. Using the tools of your choice (via abstraction layer APIs), and providing open and flexible integration layers, rich OOB integration with HP and third-party automation and assurance tools, HP CDA reduces time to value, costs and risks, as well as enabling improved collaboration and use of resources for your company's developers, testers and SMEs.
Why is this important?	Application models are often custom-built, require manual updates, are difficult to update, and prone to error. HP CDA's flexible application modeling provides many of the fundamental building blocks for your application model, as well as reusable components, and is easier to maintain and use to quickly build new models. So application developers can now define application components independent of infrastructure, and deploy an application in different environments as it moves through the lifecycle stages. By using a single tool for managing applications from development to production, HP CDA accelerates the application release process, improves application quality through automation and consistency of deployment, and provides choice and flexibility.
For more information	See the *HP CDA Concepts Guide* for more information.

Consistent self-service experience integrating with HP CSA 3.1

Feature description	HP CDA integrates with HP Cloud Service Automation (HP CSA) to provide a consumer self-service portal to subscribers (developers, testers and operations personnel) that enables them to consistently and repeatedly release applications that the meet time-to-market or innovation needs of your business.
Technical description	Subscribers request services to be accessed using various browsers and devices. HP CSA is a unique platform that orchestrates the deployment of compute and infrastructure resources and complex multi-tier application architectures, providing a catalog-based subscription to order cloud and IT services. Specifically, users have the ability to take HP CDA models (be it at the infrastructure-level, platform-level, or application-level) and publish a model with a lifecycle into HP CSA. So, HP CDA acts as a resource provider for HP CSA, and enterprises are able to consistently deploy applications and platforms from the CSA interface. Users have a consistent experience, whether it's with HP CDA directly, or with HP CSA via HP CDA.
Why is this important?	This integration provides a consistent look and feel to customers.
For more information	See "Consumer Self-service Portal" in the *HP CDA Concepts Guide* and also the *HP CDA Installation and Configuration Guide*.

Core Functionality

Parameter improvements

Feature description	HP CDA users can create and use domain, tenant and application parameters.
Technical description	Model designers and application developers can add parameters to customize model and application components. Parameters are defined at the lowest level at which they are visible to all the children that must view them. If a parameter must be visible to two different application layers in the same model, then it should apply to the model. If it must be seen by two different application layers in two different application deployment models, then it should be created in the application deployment model. In addition to the addition of new parameter types, there are improvements in parameter type checks. So users can avoid annoying syntactical errors when leveraging a deployment or as a result of entering invalid information.
Why is this important?	With domain parameters, users can apply global parameter settings across all of their models based on the lifecycle stage. Also, it's possible that users may type in characters when the parameter field requires numbers. HP CDA parameter checks prevent this type of error. Users can configure parameter type checks as part of the overall parameter configuration.
For more information	See *Managing Parameters* in the Continuous Delivery Automation Help.

Placed directories

Feature description	Customers can use Placed Directory components to copy directories from a variety of sources to a target provisioned instance.
Technical description	After users define a software artifact that contains a directory structure from a software artifact provider, they can, at deployment time, specify that the entire file set is deployed using the configured full install base path. Users can take the directory contents and either include or exclude some of the content, or take the directory in its entirety and place it in a target with the appropriate permissions and ownership. Users can add a placed directory component from wither the Application layer workflow or the Platform Software workflow.
Why is this important?	This streamlines and simplifies the selection of files when deploying an application.
For more information	See *Placed Directory Operation* in the HP Continuous Delivery Automation Help.

Provisioner now a plugin architecture

Feature description	All HP CDA APIs are documented and are exposed.
Technical description	Previously, Provisioner was a point-to-point integration. In this release, Provisioner has a plug-in architecture, so users have the ability to integrate with their own provisioners.
Why is this important?	Users are not forced to revise tool choices when using HP CDA. Rather, they have many choices when it comes to build tools, application deployment tools, infrastructure deployment tools, monitoring tools and infrastructure sourcing tools.
For more information	See *Integrating External Services* in the HP Continuous Delivery Automation Help.

Artifact provider plugins

Feature description	HP CDA provides the software artifact provider plug-ins for integration with various external artifact repositories.
Technical description	Software artifacts are required to integrate applications with your build server. Your build server is the location where you map high-level software artifacts that are generated (by your build server) for an application. Software artifacts also specify what you will use in your application model as part of the deployment. HP CDA provides the following artifact provider plugins: • CVS – provides integration with CVS source repositories. • Jenkins – provides integration with Jenkins build systems. • SVN – Provides integration with subversion repositories.
Why is this important?	The additional artifact provider plugin interfaces allow the adaption of HP CDA into customer build environments. The API is extensible, so HP CDA can work with new tools.
For more information	See *Software Artifacts* in the HP Continuous Delivery Automation Help.

Aggregation of metrics across tiers and generation of actionable events

Feature description	When a user employs a Monitoring policy with rules, then all the individual servers in a server group have their status aggregated for the entire server group.
Technical description	After users have already provisioned and deployed an application, they can specify that the monitoring metrics from *all* servers are aggregated into a single server group view within the entire application tier. To aggregate monitoring metrics within the application tier, users must simply apply a monitoring policy that has already been configured with aggregation rules.
Why is this important?	In cases where you have many server groups—perhaps dozens or hundreds of servers—it can be a challenge to keep track of the monitors for each and every one. When you aggregate monitoring metrics, all individual status indicators and events are presented together, thereby making it easier to scan the HP CDA user interface to quickly identify any resource issues.
For more information	See *Aggregating Monitoring Metrics Within Tiers* in the HP Continuous Delivery Automation Help.

Integrations

Cloud Connector plugin

Feature description	HP CDA provides the Cloud Connector plugin, which allows designers to create a platform topology with an OpenStack template and binding.
Technical description	As with any other HP CDA Plugin, users can create multiple plugin configurations for each OpenStack environment. Designer can also add additional software to the template, which can be deployed as a post provisioning step on the provisioned VM. During provisioning, the Cloud Connector plugin allows users to modify certain properties of the template binding to customize the template. OpenStack-based provisioning allows integration with HP Cloud Services, or any OpenStack-based interface. Users can create Tosca-based design documents to be passed to OpenStack for provisioning.

Why is this important?	The Cloud Connector plugin extends HP CDA to work with the OpenStack-based provisioner along with the matrix operating environment and an existing infrastructure, which offers customers the flexibility to choose the infrastructure provider of their choice, while HP CDA manages all of the underlying mechanisms seamlessly within a single interface. Users can also create a hybrid topology with any of the combinations of the template(s) from each provider.
For more information	See the *HP CDA Concepts Guide*.

Simple agentless SSH deployer

Feature description	Provides a deployer plugin implementation (similar to the Chef and SA deployers) that utilizes the SSH protocol to perform deployment operations on target servers.
Technical description	The agentless SSH deployer supports all of the deployer common components (executed script, placed file, file set, service command) and requires only that there exist a running SSHD process on the target servers and network communication between the HP CDA server and the target servers that deployment operations are to be performed on.
Why is this important?	A key benefit of the SSH deployer plugin is that it can be used without relying on the installation and configuration of an intermediary solution such as Chef or SA in the HP CDA environment.
For more information	See the *HP CDA Installation and Configuration Guide*.

Hybrid templates for platform design

Feature description	Previously, users could only define a template once in its entirety. So if you were operating in a matrix environment or within the existing infrastructure, you would have had to use the template in total—there was no mixing and matching of templates. Now you can mix and match templates from a platform design.
Technical description	You can mix and match multiple templates from a platform design. So you can have a template where the data build and middleware comes from one template, and your web layer comes from within a different template, and you can combine the two of them seamlessly.
Why is this important?	Hybrid templates enable customers to reuse multiple infrastructure tier definitions from one or more resource pools, instead of having to combine them into a single template within a single resource pool; this results in greater ease and flexibility of template use. Hybrid templates also make it easier for the designer to visualize the complete platform in a single view, with the same features applied across template providers (such as post-provisioning software deployment and authentication).
For more information	See *Infrastructure* in the HP Continuous Delivery Automation Help.

HP Operations Manager (OM) integration

Feature description	HP CDA now integrates with HP Operations Manager and several of its Management Packs (also known as Smart plugins, or SPIs).
Technical description	HP CDA can leverage the monitoring capabilities of HP Operations Manager, and can deploy monitoring policies on OM, as well as HP SiteScope, HP Diagnostics, and Nagios.
Why is this important?	HP OM integration with HP CDA allows you to extend your existing HP OM installations to include HP OM agents deployed in cloud environments. That is, you can view your private data center and your private or public cloud environments from a single HP OM console.

For more information	See *Monitoring* in the HP Continuous Delivery Automation Help.

PostgreSQL support

Feature description	HP CDA supports the PostgreSQL database.
Technical description	HP CDA supports the PostgreSQL database.
Why is this important?	With support of PostgreSQL, HP CDA customers have an additional database option (in addition to Oracle or SQL Server databases).
For more information	See the HP Continuous Delivery Automation Help.

For more information

HP software product manuals and documentation for HP CDA can be found at http://h20230.www2.hp.com/selfsolve/manuals. You will need an HP Passport to sign in and gain access.

To help us improve our documents, please send feedback to cdadocs@hp.com.

Table 1: Document revision history

Date or version	Changes
January 15, 2013	First draft
February 28, 2013	Final draft

Get connected

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Current HP driver, support, and security alerts
delivered directly to your desktop