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Cisco CloudCenter Solution with Service Now

Overview

The Cisco CloudCenter™ hybrid cloud management platform securely provisions infrastructure resources and deploys applications to more than 19 different data center, private cloud, and public cloud environments. The Cisco CloudCenter and ServiceNow platforms together give developers and IT operations staff a powerful, self-service, and on-demand solution for deploying and managing both application stacks and underlying infrastructure.

Cisco CloudCenter benefits

- **Expand IT as a Service (ITaaS):** Improve customer satisfaction by giving users access to self-service on-demand deployment to any environment through the ServiceNow centralized portal.

- **Extend domains:** ITSM, ITOM, and ITBM now include application deployments and cloud environments. Update the Configuration Management DataBase (CMDB) with workload status changes; support incident management with performance and log data; and link back to business service reporting with use metering and cost data by user group, business service, or cloud environment.

- **Fast time-to-value:** The Cisco CloudCenter solution is available as a Software-as-a-Service (SaaS) solution or as traditionally installed software. And it can be implemented in days or weeks—not months. It takes less than an hour to add a supported cloud to the Cisco CloudCenter deployment and just a few minutes to create and publish application profiles to ServiceNow.

Extending ServiceNow

With the Cisco CloudCenter solution, service managers and application owners can easily create "model once, deploy anywhere" application profiles and publish them to ServiceNow. With ServiceNow, users then request deployment to any supported data center or cloud with side-by-side cost comparisons for each option.
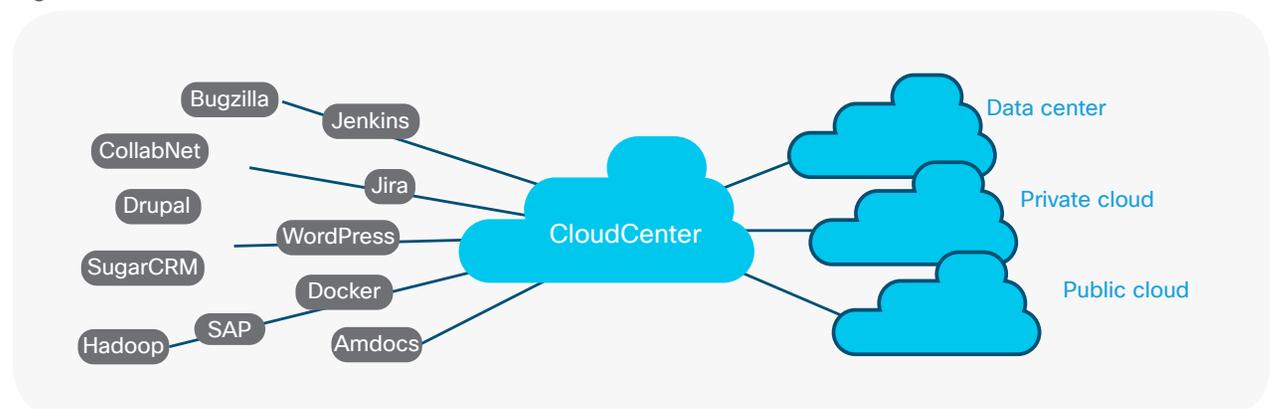
The Cisco CloudCenter solution extends IT Service Management (ITSM), IT Operations Management (ITOM), and IT Business Management (ITBM) processes to include application deployment and management, while adding enterprise-class management and governance features (Figure 1).

- **Support for applications, whether simple or complex:** Templates make it easy to model simple or complex applications, whether single

virtual machines; multitier, batch, or High-Performance Computing (HPC) processes; or Docker containers. The Cisco CloudCenter service library includes easily customizable OS images and application services, and cloud autoscaling, load-balancing, and database services.

- **Cloud portability:** Application profiles are cloud independent and portable. This feature prevents cloud lock-in and eliminates the need for multiple environment-specific catalog items and deployment scripts.

- **Shopping cart cost comparison:** Users select catalog items that are added to a shopping cart feature. Users select deployment duration and then choose the target environment based on side-by-side cost estimates.

Figure 1. Cisco CloudCenter solution

Any application, any cloud—as a service

The Cisco CloudCenter solution extends what can be offered as a service for key users:

- **For developers:** Get instant access to development and test environments that include configured infrastructure resources as well as databases, middleware, and the latest build. The Jenkins plug-in integrates into a continuous integration process and automates continuous deployment so that users can request the latest build through ServiceNow.

- **For IT staff:** Automate common application deployment and management tasks, such as deploying a virtual machine or a database service or provisioning a specific image to a specific VLAN. IT can help ensure consistent use of hardened OS images and automate other tasks to meet IT audit and compliance requirements.

- **For business users:** Get instant access to temporary deployments of computation-intensive or batch-type applications, such as drug research environments and Computer-Aided Design (CAD) or simulation applications. The Cisco CloudCenter solution enables self-service and pay-per-use models, which help reduce shadow IT and optimize public cloud resources.

Working together

The ServiceNow and Cisco CloudCenter solutions together enable a transparent workflow (Figure 2):

- **Application profiles:** A service manager can easily model a cloud-independent application profile in the Cisco CloudCenter profile modeler with out-of-the-box or imported images, application services, and containers and then publish it to ServiceNow.

- **Service requests:** In ServiceNow, the requestor selects the appropriate item, adds it to the shopping cart, enters start and end dates, and then chooses the deployment location based on a side-by-side cost comparison that is presented for each available cloud.

- **Approval workflow:** ServiceNow approval workflows route the request to approvers with projected costs to help guide their decisions.

- **Automated deployment:** ServiceNow calls the Cisco CloudCenter solution to provision cloud infrastructure resources through direct communication with the target cloud API. It then deploys and configures application images, services, and data.

- **Status updates:** ServiceNow receives status and ongoing infrastructure performance updates from the Cisco CloudCenter solution. Using information from third-party application performance monitoring and service assurance tools, ServiceNow can log an incident or start a new remediation workflow.

- **Closing the loop:** ServiceNow workflows automatically redeploy or scale applications through the Cisco CloudCenter solution. At the end of the application's life, the Cisco CloudCenter solution manages the termination of the application, infrastructure, and any network policy objects if the solution is integrated with Cisco® Application Centric Infrastructure (Cisco ACI™).

Figure 2. ServiceNow and Cisco CloudCenter workflow
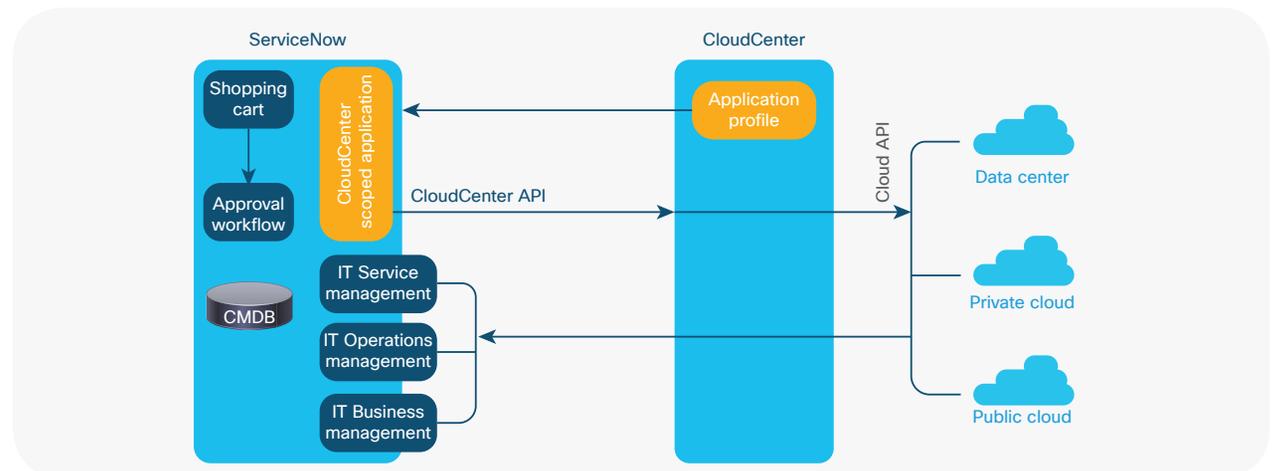
Hybrid IT options

The Cisco CloudCenter solution provides out-of-the-box support for more than 20 environments and regions (Figure 3), including:

· **Data center:** Management solutions include Cisco UCS® Director, Cisco ACI, VMware vCenter, and other software-defined infrastructure management solutions.

· **Private cloud:** A wide range of OpenStack implementations as well as VMware vCloud Director, and Microsoft Azure Pack are supported.

· **Public cloud:** AWS, AWS GovCloud, Alibaba Cloud, Microsoft Azure, Azure Government Cloud, Google Cloud Platform, Dimension Data, IBM Bluemix, Rackspace, and VMware vCloud Air, among others.

Figure 3. Cisco CloudCenter supports a wide range of private and public platforms

Public		Private	
Amazon Web Services	AWS GovCloud	OpenStack	VMware vSphere
Google Cloud Platform	Microsoft Azure	Windows Azure Pack	Cisco UCS Director
Microsoft Azure Government	IBM Bluemix	Red Hat	Cisco Metacloud
Dimension Data	VMware vCloud Air		
	Alibaba Cloud		