Cisco UCS Central Software plus Cloupia Unified Infrastructure Controller: Automation and Orchestration for Cloud Solutions Across Multiple Cisco UCS Domains

The Cloupia Unified Infrastructure Controller (CUIC) provides a single pane of glass for managing, provisioning, and orchestrating Cisco Unified Computing System\textsuperscript{\textregistered} (Cisco UCS\textsuperscript{\textregistered}) infrastructure. Used with Cisco UCS Central Software, it aggregates the management of multiple Cisco UCS Manager domains and enables the movement of service profiles across infrastructure and data centers with point-and-click simplicity.

**HIGHLIGHTS**

- Manage Multiple Cisco Unified Computing System\textsuperscript{\textregistered} (Cisco UCS\textsuperscript{\textregistered}) domains end to end: Cisco UCS Manager embedded device management software manages each Cisco UCS domain across the entire system as a single logical entity. Cisco UCS Central Software extends these management features to multiple Cisco UCS domains, which may be distributed across different data centers.
- Create and deploy application instances across servers in a distributed virtual environment: When integrated with Cisco UCS Central Software, the Cloupia Unified Infrastructure Controller (CUIC) enables administrators to create and deploy Cisco UCS service profiles and templates across multiple Cisco UCS domains using Cisco UCS Manager.
- Simplify application provisioning and management with a single, unified interface for top-to-bottom service orchestration: CUIC provides unified management, centralized visibility of resources, and centralized control across Cisco UCS instances in multiple data centers.

**Cisco Unified Computing System and Cisco UCS Manager**

Cisco UCS is the first data center platform that integrates industry-standard x86-architecture Cisco\textsuperscript{\textregistered} servers with networking and storage access into a single converged, computing, networking, and storage system. Cisco UCS Manager provides a single point of management for each Cisco UCS domain of up to 160 servers and associated infrastructure. Using a policy-based approach to server provisioning based on service profile templates, Cisco UCS Manager is used by administrators to quickly reproduce existing physical configurations, including I/O, firmware, and settings. A role-based access control (RBAC) model helps ensure the security of system configurations.

**Cisco UCS Central Software**

Cisco UCS Central Software extends Cisco UCS Manager features across multiple Cisco UCS domains. It allows companies to manage unified computing environments on a global scale, putting computing capacity close to users while managing infrastructure with policies defined centrally. With Cisco UCS Central Software, helping ensure global policy compliance is much easier, with subject-matter experts able to choose the resource pools and policies that must be enforced globally or locally. Cisco UCS service profiles can be moved between geographical locations with drag-and-drop simplicity to enable fast deployment of infrastructure as needed to support business workloads.
Cloupia Unified Infrastructure Controller for Cisco UCS Central Software

Cloupia’s comprehensive management and automation features, used in combination with Cisco UCS Central Software and Cisco UCS Manager, simplifies the building of multiple virtualized Cisco UCS data center environments. With self-service portal, service catalog, orchestrator, and resource management components, CUIC makes it far easier to manage and orchestrate server resources responsible for complex single-tenant and multitenant applications across multiple data center domains.

CUIC accelerates delivery of data center services through end-to-end policy-based self-provisioning for both virtualized and nonvirtualized systems. Today’s data center capacity planning and dynamic workload provisioning requires integrated monitoring and management of both physical and virtual environments. CUIC provides discovery, monitoring, provisioning, and lifecycle management of physical and virtual Cisco UCS infrastructure. Cisco UCS customers can fully automate their disparate data center operations and improve resource utilization significantly with CUIC and Cisco UCS Central Software (Figure 1).

**Figure 1.** CUIC Provides Automation and Orchestration of Server Resources Across Cisco UCS Domains

CUIC features that use Cisco UCS Central Software and Cisco UCS Manager include:

- Autodiscovery and dashboards: CUIC automatically discovers and monitors all Cisco UCS components across multiple Cisco UCS domains, including chassis, servers, fabric interconnects, disks, fabric extenders, network adapters, fans, modules, and memory units. It also discovers the virtual environment within each set of Cisco UCS blade and rack-mount servers. A unified dashboard provides comprehensive, detailed, and correlated views into all Cisco UCS components. It also provides complete visibility into inventory and operations and licensing reports for all components. A role-based access model includes the detailed control required to limit access to specific roles.
• Cisco UCS service profiles management: A unified interface enables service orchestration across all Cisco UCS domains. Using CUIC, users can create and deploy Cisco UCS service profiles and templates to provision servers and other infrastructure to run specific applications. Service profiles can easily be migrated and replicated from one physical blade or rack-mount server to many others in different data centers, greatly simplifying service catalog development and enabling on-demand service delivery.

• Unified orchestration: Administrators can customize and automate Cisco UCS administrative and operations tasks using an easy-to-use workflow user interface. CUIC provides a built-in task library and user interface designer so that administrators can easily and visually design complex workflows. IT teams can build and run repeatable physical and virtual infrastructure provisioning workflows across Cisco UCS domains with Cisco UCS Central Software and Cisco UCS Manager without using complex custom scripts and expensive system integration specialists. The orchestrator helps standardize IT services, reduce downtime, and increase policy compliance.

• Analytics and reports: The CUIC provides real-time reporting of resource health and utilization status with visibility into physical and virtual infrastructure resource consumption for more efficient capacity planning. Unified management of computing, networking, and storage components across multiple Cisco UCS domains accelerates discovery and eliminates the tedious and error-prone process of manually correlating information about disparate system components. Administrators can quickly detect and remedy bottlenecks or outages that affect application performance and availability.

For More Information

• Cisco Unified Computing System: http://www.cisco.com/go/ucs