METSI TECHNOLOGIES

USE CASE: NATIVE OPENSTACK MANAGEMENT USING UCSD

Technology

OpenStack is a free and open source software platform for cloud computing, mostly deployed as IaaS, managed through a web-based dashboard, command line tools, or RESTful web services. OpenStack is managed by the OpenStack Foundation, a non-profit corporate entity established in 2012.

Cisco UCS Director (UCSD) is a heterogeneous platform for managing public, private and hybrid cloud elements whilst providing Infrastructure as a Service (IaaS) catalogue functionality to the end user. UCSD supports a variety of hypervisors, as well as native support for various compute, storage and network devices. UCSD provides policy driven provisioning across bare metal and virtualized environments, including on hyperconverged infrastructure.

Challenge

Our customer needed to natively perform OpenStack management operations using the USCD (Cisco UCS Director) management interface. Traditionally, OpenStack & UCSD integration is achieved via custom workflows using UCSD and API calls. This approach, though highly customizable and effective, lacks the front-end visibility of artefacts within the OpenStack hypervisor.

Unlike the native integrations with VMware, Hyper-V and AWS, the environment and the hosted virtual machine cannot be viewed in the standard UCSD views. Because of this, point and click lifecycle management (power-up, shutdown etc.) is not possible from standard context menus.

Solution

Using the UCSD SDK, Metsi proposed a solution that adds OpenStack tenants into UCSD, to perform operations on projects, instances, images and VMs. This integration introduces a framework by which UCSD can natively perform OpenStack management functions and lifecycle operations. Furthermore, the 'single pane of glass' experience is maintained by extending the front end to keep the hybrid cloud solution vendor agnostic. Metsi's solution allowed our customer to utilize UCSD to automate tasks in OpenStack, and view OpenStack resource usage using UCSD.

Summary

Metsi provides Infrastructure as a Service design and implementation. In designing IaaS, it is often necessary to integrate multiple tools and platforms in order to achieve a truly centralized "single pane of glass" administration. Our dedicated team of developers and engineers designs and implements centralized IaaS management solutions, regardless of where the workload is.

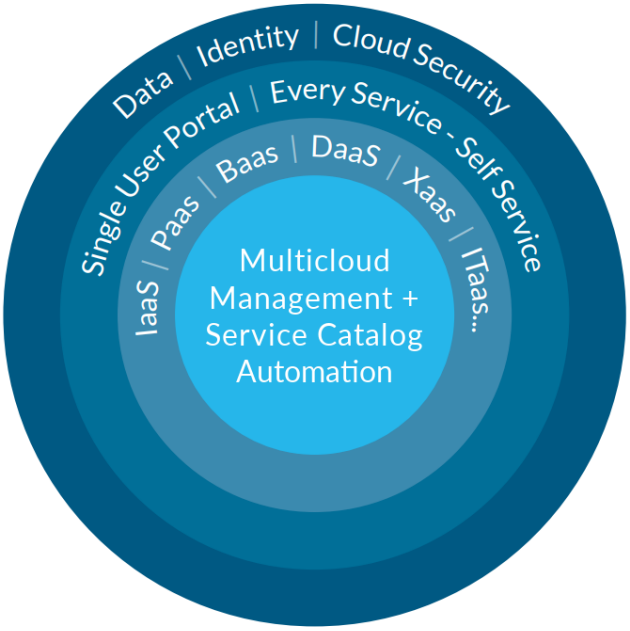
Metsi not only provides the ability to extend your hybrid cloud into OpenStack, but also to build the customized libraries to bring about the automation and orchestration of the infrastructure components. For this scenario the UCS Director SDK, CloupiaScript modules and orchestration workflows provide the bedrock platform.

Metsi empowers our customers to streamline the business processes and maximize return on investment by reducing complexity and delivering the infrastructure to the user from a single portal

Metsi Technologies

Metsi is a global Full Stack Engineering Systems Integrator, Cisco Integrator Partner, and Cisco Business Learning Partner. We have business offices in the US, UK, and Germany and distributed engineering resources throughout North America, Europe, and Africa.

Metsi specializes in complex systems automation & orchestration, built on a multicloud or hybrid cloud fabric, and empowered by a Software Defined Data Center. Our software engineers are experts in self-service platforms (Prime Service Catalogue, CloudCenter), real-time business performance and optimization (AppDynamics, Tetration, Turbonomic); and automated control of network infrastructure (ACI). We integrate the entire IT stack, including RedHat, Microsoft, VMware, Kubernetes, AWS, Azure, and Google Cloud Platform. At the top of the stack, we offer 20+ years of Business Performance Management, including business intelligence, software intelligence, and Cloud APM.



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