Independent Software Vendors: Deploy Software as a Service on Cisco Infrastructure

What You Will Learn

Whether independent software vendors (ISVs) with SaaS offerings decide to rent resources on a public cloud, build and run a private cloud, or deploy a mix of both (hybrid cloud), they must balance the need to reduce overall costs with delivering an uncompromised customer experience. Many ISVs have realized that the right answer is to run their SaaS offerings on Cisco® infrastructure.

Reduce Overall Costs–and Deliver a Superior Customer Experience

One of the most important decisions ISVs will make this decade is where to host production software as a service (SaaS). This decision can significantly affect the quality of the customer experience and infrastructure costs. In fact, no matter how feature-rich an ISV's application is, if customer data is compromised, or if customers experience frustrating delays because an application runs too slowly or is not available, they will be dissatisfied. On the other hand, the ISV's application delivered as a service is expected to deliver back to the company exceptional margins, which are greatly affected by both the overall cost of the underlying SaaS infrastructure and the ongoing costs to operate and manage it.

Meet SaaS Infrastructure Requirements with an Integrated Approach

Cisco takes an integrated approach to meeting the infrastructure challenges faced by ISVs who deploy software as a service. Among other things, this approach includes a software-defined server and edge, network fabric unification, and integrated, model-based management. The result is a reduction in the time and complexity required to operate and manage a cloud, as well as enhancements in performance and availability.

Read the white paper "Change the Economics of Infrastructure for Software as a Service" to learn more about the technical attributes of a cloud based on Cisco technology.

Migrating from Commodity-Grade Clouds: Case Studies

A financial services ISV began its cloud journey with Amazon Web Services (AWS). As the organization fine-tuned its requirements and gained valuable experience, it decided to migrate to a private cloud based on Cisco technology for the following reasons:

- **Economics:** Calculations revealed that it was 50 percent less expensive to operate a private cloud based on Cisco technology.
- **Client service:** In a shared, public cloud environment, providing a high level of client service was impossible. On a private cloud, where the ISV could deploy best-in-class components and control its environment, it was possible to adhere to the service-level agreements (SLAs) enterprise customers demanded.
- **Data security:** Customers were not comfortable with maintaining highly confidential data on a third-party, shared-cloud environment. A dedicated, private cloud offered an appropriate level of protection.

For a gaming ISV, savings realized by running on purchased Cisco equipment were complemented by ease of deployment. With the Cisco Unified Computing System™ (Cisco UCS®), provisioning 120 servers simultaneously required less than 10 minutes.

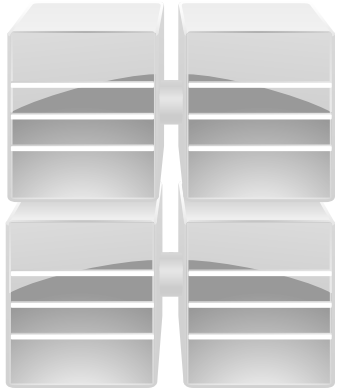
Interestingly, the ISV's TCO analysis revealed a 4.5-month break-even point when comparing the cost of renting capacity on AWS with the cost of adopting a Cisco private cloud solution.

Migrating Existing Private Clouds to Cisco Technology-Based Private Clouds: Case Studies

Because its SaaS offering powers its customers' posts, forums, streams, and likes, an ISV powering social media communities for global enterprises needed to deliver 100 percent availability with deterministic and reliable performance. The ISV also needed to deliver enterprise-grade security in order to protect private, social discussions.

The ISV migrated from an outsourced, managed services environment to a private cloud deployed on Cisco technology in four data centers around the world. These centers run more than 30,000 virtual machines on more than 800 blades—all managed by a single employee.

An ISV serving the insurance market was preparing for exponential growth but believed its TCO was not sustainable in a private cloud environment built on Dell and HP servers. As the ISV expanded virtual machine densities, for example, it learned that it would have to upgrade its core network and server access layers to a consolidated 10 Gigabit Ethernet infrastructure. Essentially, it had become cost-prohibitive to connect each server to multiple Gigabit Ethernet, Fibre Channel, and keyboard, video, mouse (KVM) interfaces, as was the case with the existing HP and Dell servers.



The ISV decided to migrate to a private cloud deployed on Cisco technology, taking advantage of Cisco's integrated, converged stack, which includes Cisco UCS servers, Cisco Nexus® switches, and Cisco SingleConnect technology. This decision greatly simplified the ISV's cabling strategy and reduced overall costs.

An ISV that serves small to midsize businesses (SMBs) was seeing its SaaS business grow by 1000 new customers each month, but wanted to accelerate that growth by expanding beyond its target market of health and wellness providers to small businesses in general. Additionally, the company was expanding into Europe and Asia. It was running its SaaS offering on purchased Dell infrastructure.

Provisioning each new customer on Dell servers required 10 days, delaying time to value. By deploying on Cisco UCS servers and using Cisco UCS service profiles, the ISV reduced provisioning time to two hours per customer and was ultimately able to reduce the cost of service delivery by 25 percent. In addition, it realized performance advantages as page load times decreased 40 percent after switching to Cisco UCS.

An ISV offering gaming applications to a global base of online players ran its own infrastructure in multiple strategically located colocations. As the popularity of its games grew, the ISV needed to be able to provision 1100 servers at a time. Previously, the ISV had deployed very low-cost, "white-box" servers, each of which required two days to provision—an unacceptable timeframe. With Cisco UCS servers, the ISV could deploy 1100 blade servers in 20 minutes and manage them remotely with only three IT staff members

A global leader in cloud-based talent management was rapidly growing its global SaaS customer base. Its ability to scale quickly and easily was critical to supporting business processes and also to help ensure continued revenue growth.
Because each new IBM-based rack required days to deploy, the ISV struggled to scale its private cloud. It also experienced problems in establishing a second disaster recovery site. Operations overhead was burdensome, because five people were required to manage 150 to 200 physical servers.

By migrating to a private cloud based on Cisco UCS and using Cisco UCS service profiles, this ISV was able provision new pods in minutes. Now, with Cisco UCS Central Software, only two operations staffers are required to manage servers.

An ISV serving nonprofit organizations needed to migrate to a next-generation, Health Insurance Portability and Accountability Act (HIPAA)-compliant SaaS architecture. This implied, among other things, the need for a hardened environment. Rather than change its existing SaaS deployment, the ISV selected Cisco to help redefine its architecture, which included a reference architecture built on Cisco UCS, VBlock™ Systems and FlexPod solutions. Cisco expertise and products provided an optimum solution, and Cisco UCS auditable security capabilities enabled the customer to meet HIPAA requirements.

Offering SaaS for the First Time: Case Studies

An ISV delivering insights to healthcare providers offers an enterprise data warehouse that integrates data from various departments into “a single source of the truth.” This capability allows its customers to obtain accurate and timely insights derived from their own data to provide more cost-effective and efficient healthcare.

The ISV needed to deliver 100 percent availability, reliable performance, and security. It also wanted to focus its technical resources on continuing to improve its application. As a result, the ISV partnered with a Cisco Powered cloud provider that provides the technical expertise and underlying Cisco design, delivered and managed according to the ISV’s ongoing requirements.

An ISV offering a publishing application decided to provide its application as a service, after many years of offering it only on premises. The ISV was concerned about potential latencies and a resulting poor customer experience. The ISV also made a 99.99 percent SLA commitment to its customers, with fines if the commitment was not met, and was understandably concerned that a commodity cloud could not provide the level of assurance needed.

The ISV decided to host its SaaS application on Cisco UCS. Among other solutions, the ISV deployed Cisco UCS Director to assist in bursting into additional compute resources as individual customers’ traffic expanded. For example, the ISV needed to be able to respond to traffic surges if a big news story broke. The ease of deployment and management offered by Cisco UCS also meant that the ISV could focus its resources on helping customers rather than on managing IT. Most importantly, with Cisco UCS, customers did not experience performance issues.

An **ISV offering a supply chain application** needed to implement a SaaS model to stay abreast of growth. It was important, for example, to quickly onboard new customers, many of whom had custom use case configurations. With Cisco UCS and its service profiles, the ISV created templates for each use case and was able to onboard new customers quickly and accurately. The ISV's ROI calculation showed a US$9 million savings as a result of its deployment of Cisco UCS, which required fewer cores than the former provider. This, in turn, translated into reduced Oracle license costs. The ISV also purchased a global Cisco WebEx® license to support improved communication and collaboration.

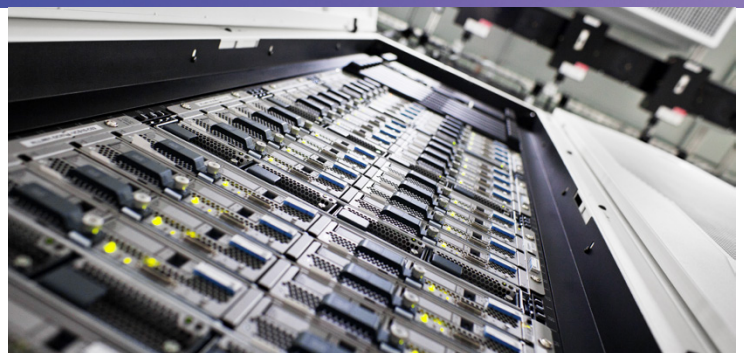
The Building Blocks of a Superior SaaS Solution

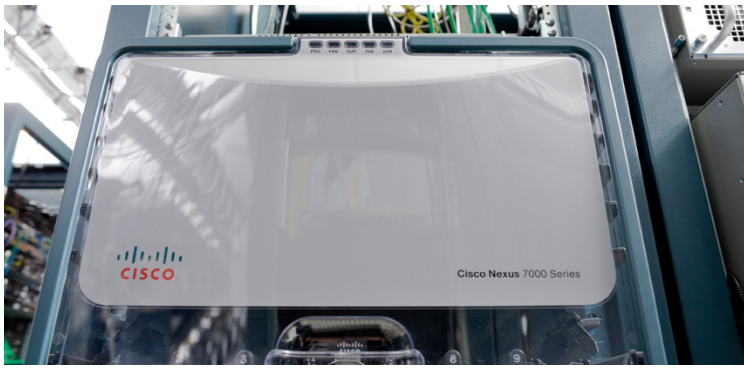
Cisco SaaS solutions, whether delivered directly or through a trusted partner, are designed to overcome the security and performance concerns many organizations face through their use of commodity clouds and to reduce the cost of delivering applications to customers.

Cisco SaaS solutions typically include the following components:

- **Cisco UCS blades:** Boost virtualization performance and support more virtual machines per server.
- **Cisco Nexus switches:** Support efficient data center growth through virtualization and high-density capabilities.
- **Cisco UCS Manager:** Control multiple servers, whether physical or virtual, and manage resources for thousands of geographically distributed virtual machines through a central console and a unified application.
- **Cisco UCS Director:** Unify and automate end-to-end IT converged infrastructure management processes by abstracting the complexity of individual devices, hypervisors, and virtual machines.
- **Cisco UCS service profiles:** Extend the virtual machine abstraction to physical servers, making it possible to provision hundreds of servers in minutes and reduce TCO.
- **Cisco Intercloud:** Build highly secure hybrid clouds and extend your existing data center to public clouds on demand, with consistent network and security policies.

In addition, ISVs can take advantage of resources available through the Cisco Data Center practice, which offers skilled and experienced staff for assistance in architecting and deploying infrastructure.





Why Cisco?

If your business is evaluating infrastructure options for running its SaaS offerings, consider deploying them on a private cloud based on Cisco technology or using the services of a Cisco Powered cloud provider. A deployment based on Cisco technology can reduce overall costs and deliver a high-quality end-customer experience.

Cisco also offers a wide range of additional resources designed to support your move to the cloud as well as SaaS business models, including:

- "Change the Economics of Infrastructure for Software as a Service": Read this white paper to dive deeper into the technical reasons why a private cloud based on Cisco technologies delivers better TCO for ISVs delivering their software as a service.
- Cloud and Managed Services Marketplace: Locate a Cisco Cloud and Managed Services Certified Partner to assist you in migrating from your existing public or enterprise cloud provider.
- Services for cloud strategy, management, and operations: Learn more about delivering your solution via the cloud.
- Cisco Intercloud Consulting Assessment: Get more information about delivering bursting or disaster recovery capabilities.

Schedule an Appointment

To evaluate the potential—financially, competitively, and strategically—of moving to private cloud and SaaS delivery models, contact your local Cisco account team or reseller to schedule an appointment today.