Cloud Provider Grows Efficiently by Simplifying Data Center

Entel improved the customer experience and IT efficiency by using UCS Director to manage converged FlexPod infrastructure.

EXECUTIVE SUMMARY

Customer name: Entel
Industry: Service provider
Location: Santiago, Chile
Number of employees: 4700

Challenge
- Grow by quickly capturing market share for cloud services
- Build foundation to offer new cloud services
- Increase profitability by minimizing operating and capital costs

Solution
- Built scalable cloud platform using FlexPod preintegrated infrastructure
- Managed all infrastructure components from one interface
- Provided customer self-service portal using Cisco UCS Director

Results
- Reduced time to provision virtual machines from 2 weeks to 20 minutes
- Supported 50 percent more customers without increasing IT staff
- Gave IT staff more time to focus on activities that add business value

Challenge

Entel is one of Chile's leading IT and telecommunications service providers. The company has a network of six data centers in Chile and Peru and a total of 4700 employees. Entel is a pioneer in using advanced technologies to help meet customers' business needs.

For example, Entel began offering cloud services in 2010, starting with infrastructure as a service (IaaS). The company knew that its data center platform would help determine its success. "Fast provisioning and issue resolution would help us provide a great customer experience," says Pablo Lambert, director of IT innovation and development for Entel. "And efficient management tools would help us grow without constantly adding more IT staff."

The company needed two types of technology: a cloud infrastructure platform and management tools. For its infrastructure platform, Entel chose FlexPod, which combines Cisco Unified Computing System™ (UCS®) servers, NetApp unified storage systems, Cisco Nexus® switches, and VMware. All components are preintegrated. "FlexPod lowers data center space, power, and cooling requirements, and it's easy to scale as our cloud business grows," Lambert says. "It's also designed for multitenant environments, so it has the security we need to offer cloud services to enterprise customers."

FlexPod met Entel's needs for scalable cloud infrastructure. But Entel also wanted a simpler way to manage FlexPod. At first, the IT staff had to use separate management tools for servers, storage, networking, and hypervisors. "When a customer requested a virtual machine, first a network specialist provisioned switch ports," Lambert says. "In a day or two, someone else configured the operating system. Other administrators would install the software and middleware. Finally someone else would test the server." Generally it took a couple of weeks before customers could start using their new virtual machines.

> "Provisioning a virtual machine for SAP for Mobility used to take at least two weeks," Lambert says. "With Cisco UCS Director, customers can begin using their server in 20 minutes."

Pablo Lambert
Director of IT Innovation and Development
Entel

Entel looked for an application to manage FlexPod as a unified system. A major requirement was to automate the provisioning process so that customers could start using their virtual machines sooner. "Automation would also allow our IT staff to spend their time on value-added activities instead of management tasks," Lambert says.

Solution

After evaluating several management solutions for converged infrastructure like FlexPod, Entel chose Cisco® UCS Director (formerly Cloupia). Cisco UCS Director provides unified infrastructure management for computing, networking, virtualization, and storage. It also includes a self-service portal that Entel's customers can use to provision and monitor their virtual machines.

"UCS Director stood apart because we'll be able to use it with other cloud services we add in the future," says Lambert. "Also, the reports and provisioning portal are ready to use with FlexPod. The other tools would have required a large integration effort."

FlexPod management is much more efficient since Entel began using Cisco UCS Director. For example, Entel's IT administrators configure each type of virtual machine just once. After configuring a SAP for Mobility server or standard Linux server, for example, they save the configuration in a catalog. The next time a customer requests that type of server, UCS Director creates it automatically, orchestrating resources from Cisco UCS servers, Cisco Nexus switches, NetApp storage, and VMware.

Customers provision virtual machines themselves using a self-service portal. When they sign in, for security they enter a one-time password supplied by Symantec Validation and ID Protection (VIP) service, which is included with Cisco UCS Director. Then they just follow the prompts to create a virtual machine. They select the operating system, when they want to start using the server, and for how many hours or days. They also choose the number of processors, memory, and storage capacity. The virtual machine is ready for use in about 20 minutes, with no involvement by Entel's IT team.

After creating virtual machines, customers can sign in at any time to delete them, monitor performance, and manage NetApp Snapshot backups. A customer might want to select the Snapshot from last Friday, for example, and then click to restore it. "Customers rarely have to call or send an email for help because they can do everything from the portal," Lambert says.

Cisco Services has experience deploying Cisco UCS Director for service providers throughout the world and helped Entel with the deployment.

Results

With FlexPod and Cisco UCS Director, Entel has built the foundation to keep providing a great customer experience as its cloud business continues to grow.

Improved Customer Experience

Entel's customers like the convenience of self-service provisioning. "Provisioning a virtual machine for SAP for Mobility used to take at least two weeks," Lambert says. "With Cisco UCS Director, customers can begin using their server in 20 minutes."

> "Before, creating every virtual machine required efforts from specialists in Cisco UCS, Nexus, NetApp, or VMware. Now, after we've created a template for a certain type of server, Cisco UCS Director automatically provisions all components end-to-end. Our customers can start using cloud resources sooner, and we start earning revenues sooner."

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Another improvement is how easy it is to order infrastructure for just a few hours or days. Customers like the economics of only paying for a virtual machine for as long as they need it, helping Entel attract new customers.

Entel's customers also appreciate being able to add or remove virtual machines using their iPhone or iPad with the free UCS Director Mobile application. "They can control the cloud from their smartphone," Lambert says. "The mobile application saves our customers a trip to their office if issues occur at night or on the weekend. We're receiving a lot of requests for it."

Increased Efficiency
The unified management interface for FlexPod has helped Entel support 50 percent more customers without adding staff. One reason is self-service provisioning. "Before, creating every virtual machine required efforts from specialists in Cisco UCS, Nexus, NetApp, or VMware," Lambert says. "Now, after we've created a template for a certain type of server, Cisco UCS Director automatically provisions all components end-to-end. Our customers can start using cloud resources sooner, and we start earning revenues sooner."

Another reason for increased staff efficiency is that Entel can more quickly resolve performance issues. Before, the teams responsible for servers, storage, networking, and VMware each had to check to see if their technology was the source of the problem. "Now we have a single view," Lambert says. "We can quickly see the source of the problem so we can assign it to the right person for fast resolution." The visual reports also help Entel anticipate the need for more capacity.

Finally, spending less time on provisioning and troubleshooting gives Entel IT staff more time to work on activities that provide value to customers or to the business. Examples include improving the customer experience, building new templates, and developing new capabilities and service offerings.
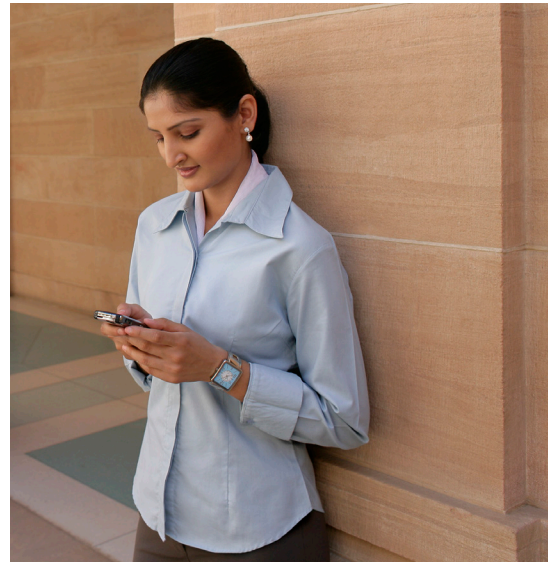
Next Steps
With FlexPod and Cisco UCS Director in place, Entel can quickly introduce new cloud services. One plan is a hybrid cloud service. The idea is that customers will be able to move virtual machines between their own data centers and the Entel cloud for business continuity or to handle peak loads.

Product List

FlexPod

· Cisco Unified Computing System (UCS)

  – Cisco UCS B200 M3 Series Blade Servers with Intel® Xeon® E5-2690 Processors

· NetApp FAS6240 Storage Systems

· VMware vSphere Hypervisor

Routing and Switching

· Cisco Nexus 5000 Series Switches

Management

· Cisco UCS Director

Applications and Operating Systems

· SAP for Mobility

· Windows Server

· Linux Server

Services

· Deployment Service

For More Information

· To learn more about Cisco UCS Director, visit www.cisco.com/go/ucsdirector

· To learn more about FlexPod, visit www.cisconetapp.com