"With F5 products, we can successfully do the heavy IT lifting for our customers so they experience CapEx savings of up to one-third."

Jeffrey Dahn, Founder and Chief Executive Officer, Lokahi Solutions

Cloud Provider Uses F5 Products to Help Enterprises Cut Capital Expenditures

Lokahi Solutions, a cloud computing service provider based in Hawaii, provides enterprise customers with hardware-independent, cost-efficient Information Technology as a Service (ITaaS) offerings. Consequently, Lokahi must ensure that its private cloud stack, the Lokahi Infrastructure Virtualization Engine,™ remains highly secure and continuously available. To achieve that level of performance, the company implemented F5 BIG-IP® Application Delivery Controllers as a critical component of its cloud environment, using F5's detailed best-practice deployment guidance. Lokahi delivers superior performance for customers while relying on F5 technologies to provide on-demand optimization, access management, and security. As a result, Lokahi is able to help organizations save up to one-third on IT infrastructure costs.

Challenge

Lokahi is breaking new ground as an enterprise provider of cloud-based technology infrastructures for small and medium-sized businesses and governmental organizations, including the Hawaii USA Federal Credit Union. Lokahi helps customers reduce capital expenditures (CapEx) by providing a pay-as-you-go, contracted infrastructure model for IT services. A "high-touch" approach differentiates Lokahi from other cloud providers, and customers rely on the company as their full-service IT provider. Jeffrey Dahn, Lokahi's founder and chief executive officer, explains, "We understand each customer's business, and we tailor individual solutions that reach all the way from the Lokahi cloud to their desktops, tablets, or mobile devices."

Lokahi's customers include financial services institutions, accounting firms, and insurance companies. When the company designed its cloud services platform, software efficiency was key. But it also needed to integrate supporting technologies that would help ensure security and high availability for customers' confidential data and IT resources. "Our customers' intellectual property, business data, financial information, and

Overview

Industry

Hosting Provider

Challenges

- Deliver highly available cloud services
- Ensure security for customers' corporate resources and data
- Reduce CapEx for customers

Solution

- BIG-IP® Local Traffic Manager™ (LTM)
- BIG-IP® Access Policy Manager™ (APM)
- BIG-IP® Edge Client™
- F5 Deployment Guide for VMware ESX Server

Benefits

- Top performance, superior support
- Enhanced security for corporate resources
- Lower costs for customers

their customers' data—everything they rely on to manage their businesses—runs in the Lokahi cloud," says Dahn. "So we have zero tolerance for outages and security breaches."

Solution

Lokahi designed a solution that enables it to deliver services to customers from its cloud through a virtualized desktop infrastructure. The integrated solution also includes firewall technology and an intruder-prevention system. In a previous role, Dahn had used F5 products to manage the IT infrastructure for a leading financial market intelligence provider, so he considered BIG-IP Application Delivery Controllers a must-have component for the Lokahi cloud. "We chose F5 products because they provide server load balancing, network optimization, and enhanced security, and also integrate extremely well with our platform," says Dahn. "F5 devices are rock-solid."

Lokahi conducted a four-month proof-of-concept (POC) implementation in which it deployed an F5 BIG-IP® Local Traffic Manager™ (LTM) 6900 device in one of its Hawaii data centers to manage traffic to its Lokahi cloud stack. The servers made it possible to run a virtualized instance of the Microsoft Windows 7 operating system on 3G-enabled Apple iPads, which Lokahi distributed to prospective customers for a trial period, encouraging them to upload and then access their corporate data and applications from the iPads. Lokahi used BIG-IP® Access Policy Manager™ (APM) to provide fast and secure access to customers' data in the cloud, which they connected to through the BIG-IP® Edge Client™, an integrated software client that enables advanced roaming, domain detection, and automatic connection for users. "The POC was such a success that it was difficult to get the iPads back," jokes Dahn. "Companies were amazed when they realized they could take their entire corporate desktop anywhere on a mobile device."

After the POC, Lokahi deployed two more BIG-IP LTM 6900 devices in its Hawaii data centers and implemented the BIG-IP APM add-on module to provide unified global access to customers' applications and network infrastructure in the cloud. BIG-IP APM provides secure, context-aware web access policy management with authentication, authorization, and accounting (AAA) control directly from the BIG-IP devices—and can also be used with the BIG-IP Edge Client. Lokahi uses VMware vCenter Site Recovery Manager and the WAN optimization services of BIG-IP LTM to accelerate and optimize storage replication and migration, thus ensuring that customers' data and applications are replicated to a secondary data center for disaster recovery.

During implementation, Lokahi used the F5 BIG-IP system deployment guide, which provided step-by-step guidance and best practices. Lokahi also took advantage of the BIG-IP LTM secure sockets layer (SSL) offload capabilities to migrate CPU-intensive SSL encryption and decryption from its servers. The company also relies on the BIG-IP product family to manage DNS and application traffic in its own environment, including its customer relationship management solution from SugarCRM.

In June 2011, the Lokahi Infrastructure Virtualization Engine was made publicly available, and in August 2011, the company attained the VMware vCloud Powered validation. Lokahi now plans to expand its services to the Asia Pacific region and the mainland United States.

Benefits

Lokahi based part of its cloud services infrastructure on VMware virtualization technology with F5 Application Delivery Controllers at the core. The solution ensures fast, secure access to corporate infrastructures to reduce the CapEx costs of Lokahi customers. Having received excellent implementation support from F5 Networks, Lokahi is rapidly building a base of satisfied enterprise customers.

Top Performance, Superior Support

Lokahi provides excellent customer service and superior performance with a powerful infrastructure that includes BIG-IP capabilities such as network optimization, SSL offload, and intelligent traffic management. "Thanks to F5 products, we don't have to tax our servers with SSL transactions," says Dahn. "We also provide faster performance with WAN optimization. Our customers are very happy."

Lokahi notes the exceptional service it receives from F5. "F5 has always gone the extra distance for us," says Julianna Dahn, Lokahi's vice president of marketing and client services.

Enhanced Security for Corporate Resources

In addition to its firewall and intrusion-prevention system, BIG-IP APM provides Lokahi with reliable security in the cloud. "BIG-IP APM gives us an essential additional layer of security," says Jeffrey Dahn. "It also allows us to provide secure remote access to each of our customers' corporate IT environments from their own networks and devices. With F5 products, we can deliver cloud resources on a pay-as-you-go basis—at the enterprise level."

Lower Costs for Customers

Lokahi Comprehensive Cloud Solutions™ make it easier for organizations to reduce CapEx costs by partially or fully migrating their IT infrastructure to the Lokahi Infrastructure Virtualization Engine. With BIG-IP products as a fundamental element of the solution, customers experience lower costs and high performance. Dahn says, "With F5, we can successfully do the heavy IT lifting for our customers so they can experience CapEx savings of up to one-third."

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