

Lithium Builds World-Class SaaS with Redapt's Converged Cloud Solution Featuring Juniper Networks Contrail

Summary

Company:

Lithium Technologies

Industry:

Technology

Business Challenge:

- Integrate a production-ready SDN solution to bridge an existing public cloud and a newly expanding private cloud
- Leverage a converged solution to scale infrastructure and data centers
- Utilize an open-source-based solution to accelerate innovation and service delivery

Technology Solution:

- Contrail Networking
- MX80 3D Universal Edge Router

Business Results:

- Reduced the time required to innovate, deploy new facilities, and deliver new services
- Developed a virtual private cloud (VPC) service offering by implementing secure multitenancy
- Gained dynamic automation, scalability, and operational efficiency

In an era where customer expectations are dramatically increasing, Lithium Technologies helps build trust between brands by simplifying the way people get information and empowering them to share their experiences. Lithium's Total Community software platform delivers a seamless digital customer experience across websites, social channels, and mobile devices, empowering brands to build vibrant online communities that drive sales, reduce service costs, accelerate innovation, and increase brand awareness, loyalty, and advocacy. Lithium turns its customers' Web properties into destination sites that enable them to respond at scale through social channels, giving them the power to engage and enlist customers as extensions of their support, marketing, and sales teams.

Business Challenge

Today's customer experience is changing. The benefits of social networking grow more apparent every day; it is a means, not an end.

Skill and knowledge are also critical ingredients for success. Lithium's customers rely on its software platform to help them connect, engage, and understand their Total Community solution; therefore, Lithium sees customers as people, not logos. After all, Lithium's reputation and success are built on helping customers realize their vision. In a world where social technologies are constantly evolving, the challenge is to learn fast and act faster.

As a leading social technology provider, Lithium understands the importance of the hybrid cloud and moving to a micro-services architecture to take full advantage of the cloud while enabling customers to fine-tune the performance of the platform it provides. To accomplish this objective, there are intermediary phases where applications run alternately on bare metal, in virtual machines (VMs), or within containers—with all application tiers straddling public and private clouds and correspondingly different orchestration software.

"The most important thing for Lithium is to be known as the highest performing world-class SaaS company. In order to achieve this objective, we must smartly pick the right and the best solution. We have known for quite a while that open-sourced products, such as Juniper's Contrail Networking, are the best tools for the job."

Joseph Sandoval, Director of Cloud Engineering, Lithium

Lithium | 



So as not to compromise customer agility and feature velocity, Lithium offers its users self-service models with secure tenant isolation of critical import. This requires a production-ready SDN solution that seamlessly integrates Lithium's existing public cloud assets with its growing private cloud, allowing customers to stay transparent to the essence of the networking constructs while effectively abstracting the network to the customers.

"We need to leverage the infrastructure and data centers that scale," explains Joseph Sandoval, Director of Cloud Engineering at Lithium. "We need to keep up and stay current; that is the real challenge for Lithium. We cannot scale our business if we are constantly evaluating different solutions; therefore, we rely on our partnerships with Juniper and their Elite partner, Redapt, to provide us with the best solution on the first try."

Technology Solution

Redapt's converged cloud solution, based on Juniper Networks® MX80 3D Universal Edge Router with Mirantis OpenStack, enables Lithium to continue innovating its platform and release new services rapidly. Juniper Networks Contrail Networking and its open-source project, OpenContrail, are also crucial aspects for Lithium to achieve this expansion of innovation and fast service delivery.

After extensive research into various SDN solutions closely integrated with OpenStack, Contrail Networking emerged as the best cloud networking solution for Lithium. "If you want to run more than 100 virtual machines with commercially available Neutron reference architecture in your environment, you are going to run into issues very quickly due to limitations on its scalability," says Lachlan Evenson, Team Lead-Continuous Delivery Cloud Platform Engineering at Lithium. "Contrail Networking certainly solves this scalability issue."

"Juniper and OpenContrail are a great pairing, as our customers can leverage the flexibility of an open-source-based product while assuring them access to Juniper's technical support. Integrating Contrail Networking into our converged cloud solution provides our customers an immediate benefit of SDN while enabling them to dynamically automate and scale their cloud network."

Mark Williams, CTO, Redapt

"Juniper and OpenContrail are a great pairing, as our customers can leverage the flexibility of an open-source-based product while assuring them access to Juniper's technical support," says Mark Williams, CTO at Redapt. "Integrating Contrail Networking into our converged cloud solution provides our customers an immediate benefit of SDN while enabling them to dynamically automate and scale their cloud network."

Contrail Networking is based on OpenContrail, an Apache 2.0 licensed open-source project that demonstrates Juniper's commitment to openness and allows all participants to contribute to its ecosystem. Juniper provides technical assistance and fully supports both the open-source project and Contrail Networking, which is its own product. As an open-source project, OpenContrail enables Lithium to contribute back as well as utilize the power of the community; this combination fosters Lithium's ability to innovate faster and more effectively.

Contrail Networking implements secure multitenancy down to the network level—a key capability for Lithium as it needs to run and clearly segment multiple customers' social networking applications on the same platform. "Contrail's design is the most extensible and reusable platform from a network point of view," Evenson says. "The beauty is that it can leverage other technologies that currently exist in the networking world."

"Lithium is a SaaS company, so it's crucial that we're able to quickly roll out new features and services to customers in order to maintain our market-leading position," adds Sandoval. "In order to achieve this objective, we must smartly pick the right and the best solution. We have known for quite a while that open-sourced products, such as Juniper's Contrail Networking, are the best tools for the job."

Business Results

Redapt's converged cloud solution running Juniper Networks high-performance networking solutions and Mirantis OpenStack, along with Contrail Networking, have drastically reduced the time required for Lithium to design, build, and replicate data center deployments in multiple locations. In addition, Contrail Networking's ability to implement secure multitenancy has enabled Lithium to develop a virtual private cloud (VPC) offering while meeting requirements from public cloud providers. This, in turn, has created a seamless virtual overlay network interconnecting both Lithium's private cloud and third-party public clouds.

"This joint solution from Redapt, Juniper, and Mirantis enabled Lithium to take a more modular and repeatable approach to designing data centers and procuring hardware," Sandoval says. "This consistent methodology can shorten the time required to deliver new facilities and services, lowering our support costs by eliminating inefficiency from our data center operation."

Next Steps

"The relationship is built on trust, and I'm confident to say that I can put complete trust in Juniper and Redapt to accurately deliver Redapt's preconfigured hardware and software platforms from the beginning without any glitches," Evenson says. Contrail's simple, open, and agile cloud networking automation platform gives Lithium a great advantage in providing VPC and secure multitenant networks to support its customers' workloads.

"New data centers can be built in a month or faster thanks to the combination of Juniper's Contrail Networking and Redapt's converged cloud solution, which we can order as our own custom solution," Sandoval says.

For More Information

To find out more about Juniper Networks products and solutions, please visit www.juniper.net.

About Juniper Networks

Juniper Networks is in the business of network innovation. From devices to data centers, from consumers to cloud providers, Juniper Networks delivers the software, silicon and systems that transform the experience and economics of networking. The company serves customers and partners worldwide. Additional information can be found at www.juniper.net.

Corporate and Sales Headquarters

Juniper Networks, Inc.
1133 Innovation Way
Sunnyvale, CA 94089 USA
Phone: 888.JUNIPER (888.586.4737)
or +1.408.745.2000
Fax: +1.408.745.2100
www.juniper.net

APAC and EMEA Headquarters

Juniper Networks International B.V.
Boeing Avenue 240
1119 PZ Schiphol-Rijk
Amsterdam, The Netherlands
Phone: +31.0.207.125.700
Fax: +31.0.207.125.701

Copyright 2015 Juniper Networks, Inc. All rights reserved. Juniper Networks, the Juniper Networks logo, Junos and QFabric are registered trademarks of Juniper Networks, Inc. in the United States and other countries. All other trademarks, service marks, registered marks, or registered service marks are the property of their respective owners. Juniper Networks assumes no responsibility for any inaccuracies in this document. Juniper Networks reserves the right to change, modify, transfer, or otherwise revise this publication without notice.

