

ELASTALINK VALIDATES THEIR SDN SUBSCRIPTION SERVICE FOR SMES

Elastalink is a full-service IT and telecom provider specializing in customizable solutions. Focused on providing affordable SDN services to small and medium sized enterprises, Elastalink validated its SDN subscription service on the CENG infrastructure.

WHAT IS SDN AND WHY IS IT SO EXPENSIVE?

Software-Defined Networking (SDN) is a network architecture approach that allows the network to be programmed or controlled using software applications. With SDNs, network operators can program their traffic, improve agility, create policy-driven supervisions, and implement automation on their networks.

With more data-intensive operations such as big-data and virtualization growing, using SDNs to structure and manage networks is a major advantage to large enterprises. In fact, (depending on how large your customer base is) it's almost a necessity.

These enterprises can take advantage of considerable SDN benefits including:

- Centralized security
- Network redundancy and path optimization
- Lower operating costs
- Savings on hardware and decreased expenses
- Abstracted cloud resources
- Increased quality of experience

Unfortunately, many small and medium-sized enterprises (SMEs) can't enjoy the advantages of SDNs. This is because they are simply unaffordable often costing tens of thousands of dollars to implement upfront.

Noticing this problem while working with SME customers, Elastalink has come up with an interesting solution.

ELASTALINK: CUSTOMIZATION OVER GENERIC

Located in Ottawa, ON, Elastalink has been providing internet, managed routing, site connectivity, and phone service solutions since its beginning five years ago.

Believing that technology should be flexible, accessible, and intuitive to use, Elastalink differentiates itself by providing customizable solutions to unique problems.

With over 300 customers in Ontario and Quebec, Elastalink has cut out a niche by tailoring its services to meet the specific customer needs, making enterprise-grade solutions affordable to SMEs.

Noticing the value of SDNs but just how expensive they are, Elastalink plans on bringing a solution to their SME customers.

ELASTALINK'S SDN SUBSCRIPTION SERVICE

Since SDN technology is expensive to purchase, why not subscribe to it?

Well, that's exactly the idea.

Right now, Elastalink is developing an integrated, multi-tenant SDN service connecting its cloud server through on-premise Elastalink Edge Routers. Once Elastalink Edge Routers are deployed, SMEs will be able to manage their network through a tenant of Elastalink's cloud platform.

The multi-tenant SDN will provide hardware, software, hosting, maintenance, and support as a standard monthly fee allowing SMEs access to a private SDN service space.

CENG MEMBERS



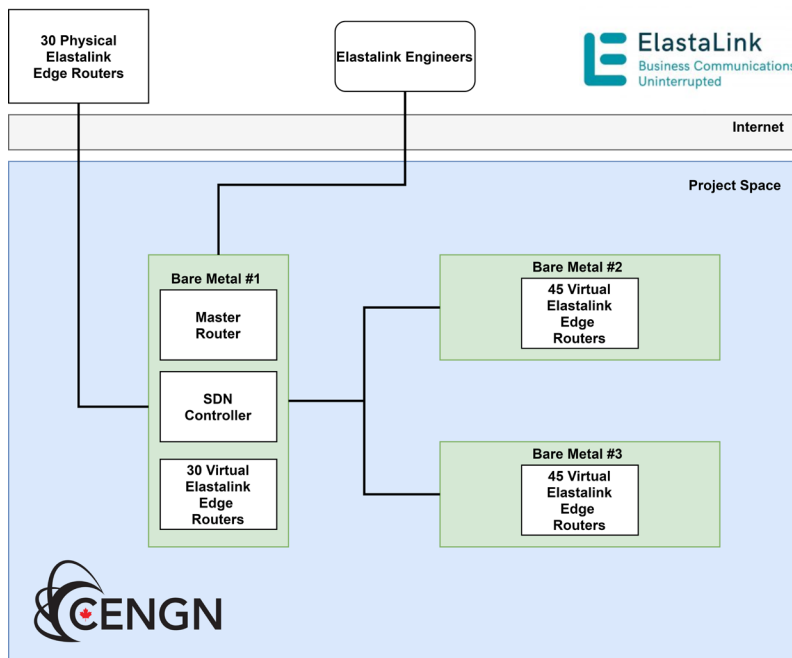
Not to stray away from their earned reputation, Elastalink will make sure that the new service is customizable and scaled for their SME customers. Since there is an ongoing rise in security threats, Elastalink is also focused on providing enhanced security for its SDN subscription service, making sure that tenants can't gain access to other user's data. SMEs will soon be able to enjoy the SDN benefits without the expensive up-front costs.

VALIDATING THEIR SERVICE

To ensure functionality, Elastalink came to CENG, testing its SDN subscription serviceability to work in a realistic environment managing multiple users at once. The test environment required the Elastalink platform to control both physical and simulated Elastalink Edge Routers, allowing the company to monitor how their SDN solution was able to handle all of this traffic at once.

PROJECT SETUP

CENG provided a project space on its infrastructure with 3 bare-metal resources to run the SDN solution and create virtual Edge Routers. Elastalink also connected 30 physical Elastalink Edge Routers to use as part of the testing process. The first bare-metal hosted 30 virtual Elastalink Edge Routers, the SDN solution (made up of an SDN controller), and the master router. The other 2 bare metals hosted 45 virtual Elastalink Edge Routers each adding extra traffic to measure the scalability of the SDN controller. The 30 physical routers were offsite and connected to the SDN Controller through the internet and given project space.



POSITIVE RESULTS

After running multiple tests, Elastalink was able to come out with positive test results determining the resources required to deploy their SDN solution on the cloud. They were able to establish connectivity between both the physical and virtual routers with their SDN controller, showing that the SDN solution can handle hundreds of thousands of messages per second. The testing also identified that the SDN controller was able to function on different WAN connections and can operate over poor network conditions without dropping performance levels.

Overall, the testing was a success showing that their multi-tenant SDN service can function in a realistic environment.

THE CENG ADVANTAGE

Elastalink took full advantage of CENG's expertise, relying on the CENG team's virtualization expertise to deploy 120 virtualized Edge Routers on the bare metal OpenStack environment. The CENG team also monitored all the raw data, summing up the results into actionable items for Elastalink after the testing was complete. This saved the company valuable time trying in analysis, allowing them to get straight to work improving their product.

Most importantly, since the SDN solution's scale test results were beyond expectation, the project proved the affordability of Elastalink's SDN subscription service.

Now knowing that we can support more customers with less technical resources, our solution is even more affordable than what we initially expected.