

# Colorcon

## EXECUTIVE SUMMARY

Pulse Secure transforms data center networking with open, virtual, and automated solutions that empower organizations to maximize their investments for the New IP

### Challenges

- Ensure 80 centralized applications perform well across the globe
- Update existing load balancing solution

### Solution

- Pulse Secure Virtual Traffic Manager virtual appliance
- Advanced load balancing functionality
- Visibility into the end user experience
- TrafficScript customization language
- Runs on common off the shell servers based on Intel's x86 architectures

### Benefits

- Excellent technical support
- TrafficScript routine allows load balancing of LDAP services
- Monitoring and alerting functionality speeds troubleshooting
- Six physical servers consolidated to two VMs
- Better application performance for employees around the globe, as well as a better experience for visitors to company's external web site
- TrafficScript to simplify programmability of sophisticated application traffic policies

## Colorcon Improves End-User Experience and Performance of Applications with Pulse Secure Virtual Traffic Manager

Colorcon provides a wide range of film coatings, modified release technologies, and excipients used by pharmaceutical and nutritional supplement companies in the development of cost-effective, high quality products.

### Challenge: Centralized Applications Used Worldwide

Colorcon has offices in 25 countries. All are linked by a network to the company's main data center in Pennsylvania where business-critical applications have been centralized. The main enterprise application is Oracle e-Business Suite, but there are 80 applications in all, including legacy and regulatory applications, that are delivered to the remote sites over the network.

Mohammed Irfan Khan is manager of databases and Internet infrastructure at Colorcon. He is part of a team that makes sure end users around the world get the performance they need from the centralized applications. His group also supports the company's internal and external web sites.

Originally, Colorcon had an open-source load balancer, which Khan saw as a potential problem for a number of reasons. "It was non-enterprise class," Khan says. "There was no support or in-house expertise for it." He hated to think what would happen if something went wrong with it.

Also, it didn't give Khan and his team the visibility they needed into application performance, particularly the end user experience. "What we had was only a dumb load balancer that would not do application layer visibility. It was just simply a Layer 4 or Layer 3," he adds.

He decided to be proactive and replace the load balancer with a commercial product. He and his colleagues performed a feasibility study and

## Why Pulse Secure

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- Mohammed Irfan Khan, Manager of Databases and Internet Infrastructure, Colorcon

*“We haven’t made any changes. All this is out of the box.”*

- Duncan Muturi, Database and Infrastructure Administrator, Colorcon

cost-benefit analysis for a number of solutions including the Pulse Secure Virtual Traffic Manager, F5, Oracle Traffic Director, and Enterprise20 from Loadbalancing.org.

## Solution: the Pulse Secure Virtual Traffic Manager

Colorcon chose the Pulse Secure Virtual Traffic Manager because it met all of the company’s requirements for load balancing functionality, support, and visibility into the end user experience (including tools for monitoring web server performance).

Another advantage of going with the Pulse Secure Virtual Traffic Manager was the availability of the TrafficScript customization language, which makes it possible to create rules for managing application traffic.

The fact that the Pulse Secure Virtual Traffic Manager is a software-based solution was an additional advantage in that it allowed for a very easy deployment. “We were up and running in an hour tops,” Khan says.

As a software solution, the Pulse Secure Virtual Traffic Manager brings all of the typical benefits of virtualization. “It makes the stack pretty small and we don’t need hardware and space in the data center. Also, backup is easy,” Khan adds.

## Benefits: Advanced Functionality Backed up by Great Support

Colorcon quickly saw the benefit of having a load balancer backed by technical support. “The level of support we’ve gotten has been 10 out of 10,” Khan says. “The support behind the product basically instills the confidence in the product itself.”

Early in the deployment, Colorcon contacted technical support about the Lightweight Directory Access Protocol (LDAP), a directory service protocol that runs on a layer above the TCP/IP stack and provides a mechanism for managing Internet directories.

“When we discovered there was no built-in load balancing for LDAP services, we called support and within two days we had a TrafficScript routine in place,” explains Duncan Muturi, a database and infrastructure administrator at Colorcon. “Now we know for sure that our LDAP is properly load balanced.”

In terms of load balancing, the Pulse Secure Virtual Traffic Manager gives Colorcon much more functionality compared to the previous open-source solution. For one thing, the Pulse Secure Virtual Traffic Manager can create, manage, and deliver Layer 7 services. Also, when the Pulse Secure Virtual Traffic Manager detects a problem, it directs traffic away from that server much more quickly, to the point that no one notices anything amiss. “No downtime, no bleep, no nothing,” Khan says. “The frequency of the polling is so good.”

Pulse Secure also offers return path routing, which supports multiple links and routes for upstream devices. Another advanced feature of the Pulse Secure Virtual Traffic Manager is global load balancing, which is something Khan wants to take advantage of in the future.

To Khan, the functionality Pulse Secure provides for monitoring and alerting is just as important as the load balancing. “With Pulse Secure, we can be aware of problems before users call and tell us,” he explains.

This helps ensure good application performance for the company's employees around the world as well as a good experience for visitors to My Colorcon, the external website, where traffic continues to grow. It also lets the IT team address issues proactively. The proactivity, combined with the ability to see where a request is being routed, has translated into much less time spent troubleshooting, according to Muturi.

With the exception of the TrafficScript routine for LDAP balancing, all of the Pulse Secure functionality that Colorcon values comes standard. "We haven't made any changes," says Muturi. "All this is out of the box."

## Summary

Colorcon proactively decided to replace its previous open-source load balancer and after a feasibility study and cost-benefit analysis, chose the Pulse Secure Virtual Traffic Manager.

The Pulse Secure Virtual Traffic Manager provided the advanced load balancing functionality, support, and visibility into the end user experience that Colorcon required. It also provided excellent technical support and the TrafficScript customization language, which makes it possible to create rules for managing application traffic. With the Pulse Secure solution, Colorcon is confident it can provide a good experience for both Colorcon employees and Web site visitors.

For more information, visit [www.pulsesecure.net](http://www.pulsesecure.net).

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