

Corsa Red Armor

Turnkey Network Security Virtualization Platform

NEED

- Traffic inspection and threat prevention for high volume North-South traffic
- Migrate to virtual appliances for all network security traffic inspection

SOLUTION

- Corsa Turnkey Network Security Virtualization Platform

BENEFITS

- Cloud-like elasticity and manageability of on-premise network security virtual appliances
- Predictable performance for any inspection and threat prevention based on scale-out architecture
- Eliminate single-vendor dedicated hardware appliances and associated refresh cycle
- Support multiple network security services in the same platform simultaneously
- Pay-as-you-grow monthly subscription model with 5x improved economics

About Corsa Security

Corsa Security is leading the transformation of network security with a private cloud approach that helps large enterprises and service providers scale network security services with unwavering performance, unparalleled flexibility and unmatched simplicity. To start on your software-defined network security journey, visit corsa.com.

The Challenge

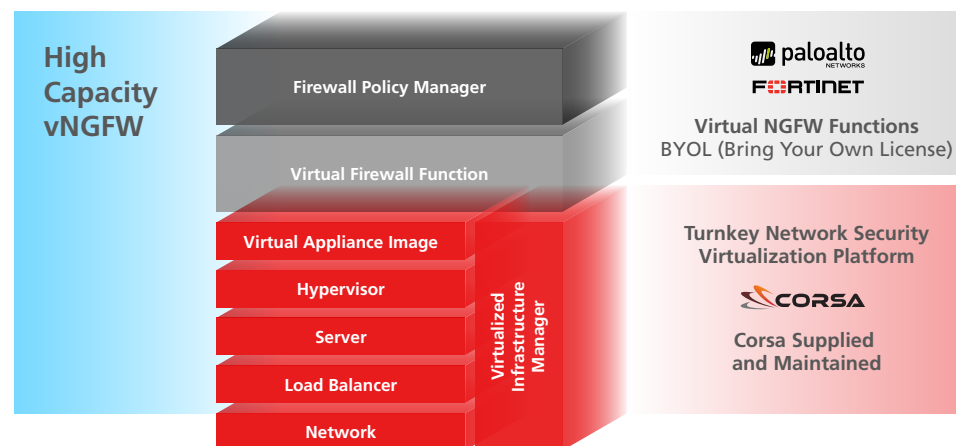
Scaling network security has always been challenging in any network. Typically, a vertical scaling approach has been adopted, where a bigger device is bought every few years to keep up with the increase in traffic volume. But this traditional approach is not viable anymore as 70%+ of all traffic in the network is now being encrypted and quickly moving towards 100%. Specialized, single function hardware cannot inspect all this traffic while still maintaining network performance so enterprises are simply blind to what is inside those encrypted connections.

The Solution

As we have learned from building webscale applications, horizontal scaling is the only way of meeting the performance demands. Instead of being dependent on buying a bigger single appliance, with horizontal scaling the focus shifts to efficiently distributing the load between multiple systems. No one system can ever be a bottleneck. In addition, webscale apps have also taught us that virtualization, in other words running applications on general purpose x86 CPUs, is always more economical than on any single purpose-built hardware.

Corsa offers a turnkey network security virtualization platform that takes both those conclusions and applies them to network security for high capacity networks.

The turnkey platform is a sophisticated integration that lets network owners horizontally scale their network security inspection with a single click.



How it Works

The platform lets users spin up and down virtualized inspection capacity by intelligently load balancing traffic between as many virtual appliances as needed and allowing VMs to be managed seamlessly from a Virtualized Infrastructure Manager. Behind the scene to the customer, the virtual appliances are running on state of the art hyperconverged infrastructure (HCI) specifically optimized for in-line network security applications.

This turnkey platform is transforming traditional network security to software-defined networking security and it allows you to have a private cloud-like experience managing your network security infrastructure. With a simple click of a button you can add inspection capacity predictably, without worrying that your inspection functions might affect network performance. This approach is the only viable solution to inspecting TLS encrypted traffic at scale.

Under the Hood

The solution is a simple and elegant integration of 4 main elements. Customers can start to apply policy and inspect traffic within hours of delivery as the platform can be deployed into any network without requiring any changes in the network design. The main elements are:

1) SECURITY SERVICES LOAD BALANCER

A transparent in-line load balancer that distributes the traffic to all the virtual appliances. It guarantees that both sides of any encrypted network connection are always sent to the same virtual appliance. This enables any stateful inspection to be performed on that connection, including TLS decryption. The load balancer also has built in path check mechanisms that provides additional resiliance and high availability.

2) SERVERS WITH VIRTUALIZATION

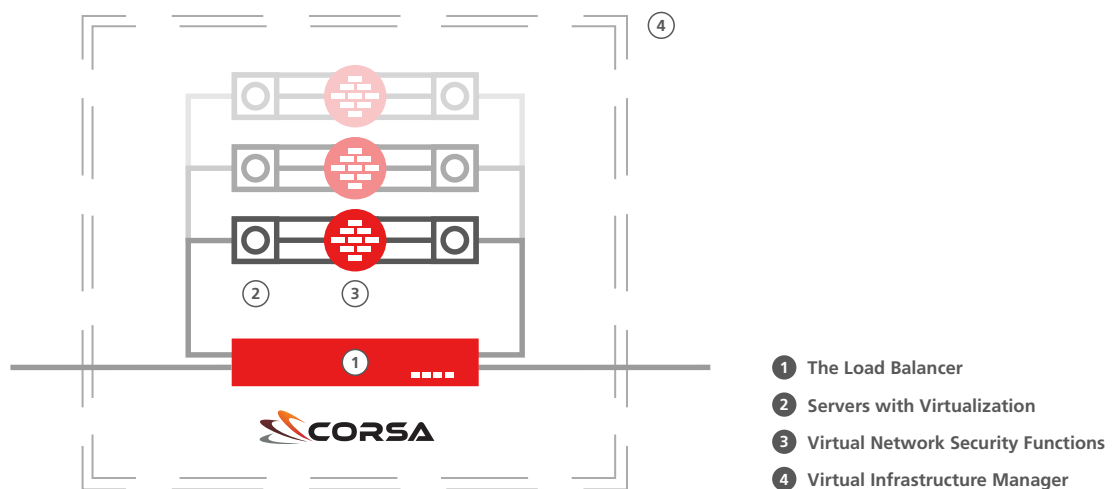
The Corsa hyperconverged infrastructure technology that is specifically optimized for in-line network security applications. These are based on Linux OS with KVM hypervisor and SR-IOV technology for networking to ensure the best possible performance for network applications.

3) NETWORK SECURITY VIRTUAL APPLIANCES

These are available from the vendor of your choice, and are performing all the network security inspection and threat prevention work so you can trust that you are still getting the best technology from the security perspective.

4) VIRTUALIZED INFRASTRUCTURE MANAGER

Provides a cloud-like user experience for managing your virtualized network security infrastructure. Powered by OpenStack, it gives you a simple way to provision and manage virtual network security appliances and the associated server, network and load balancing functions. It pushes the necessary initial configuration to the virtual appliances that allows them to be seamlessly integrated into the firewall policy manager from your preferred firewall vendor.



Deployment

The whole system is extremely simple to consume. From the network perspective it is deployed as a virtual wire firewall on any high capacity link. Corsa provides all the necessary network, server, load balancing and management components in a turnkey HCI package. The customer just needs to provide the appropriate licenses to the virtual appliances, and configure the firewall policy from their existing policy manager.

This solution allows you to very easily migrate from single purpose dedicated hardware appliances, to flexible cloud-like infrastructure that can scale from 1G to 100G of network traffic inspection. Turning on CPU intensive inspection features are no longer a problem because the solution scales out horizontally, delivering predictable performance for all your network security needs.

The platform provides unparalleled levels of flexibility. Because network security functions are virtualized, switching network security services can be as easy as shutting down old virtual appliances, and starting new ones. The same goes for firewall software upgrades.

Last, but not least, this allows you to convert to a cloud-like OpEx based consumption model with monthly subscription pricing based on the traffic inspection capacity you require. Since this is running on general purpose x86 servers, it provides 5x improved economics over existing solutions.

Decide how much inspection capacity you want to buy, and with a one-click ordering process, and 10 minute install you can be inspecting 100% of your encrypted traffic today, knowing future capacity needs are just a single-click order to scale inspection.