

# Optimizing Pulse Secure Access Suite with Pulse Secure Virtual Application Delivery Controller solution

## Features & Benefits

- Best-in-class VPN and vADC solutions
- A single point of access for all users in all locations
- Secure remote access to on-premise and cloud resources across various desktop and mobile devices
- Complete visibility and control over access to the corporate network and application resources
- Flexible enterprise deployment options: physical or virtual appliance to cloud and hybrid
- Lower total cost of ownership (TCO)

## Customer Challenges

With the rapid adoption of mobile and cloud technologies, Enterprise IT needs to provide uninterrupted secure access service to corporate on premise and cloud resources from any device, anywhere and anytime. Moreover, employees and partners are increasingly using their own devices to connect to critical applications, resulting in new security challenges into the network.

The [Pulse Access Suite](#) solves the anywhere and anytime enterprise challenge, starting with Pulse Connect Secure, a seamless and cost-effective, SSL VPN solution for remote and mobile users from any web-enabled device to corporate resources.

Pulse Connect Secure is the key component to Pulse's Secure Access solution, providing anytime access. In order to meet the demanding scale and complexity of global enterprise IT deployments, customers must install load-balancing appliances with the secure access solution to support the increased security and performance needs.

With the addition of the [Pulse Secure virtual Application Delivery Controller \(vADC\)](#) solution IT professionals now have a much more powerful platform to enforce application security out-of-the-box as applications scale out to meet the surge in demand. Pulse Secure vADC delivers the most comprehensive deliver secure access to support global enterprise from legacy data center applications to web, cloud and even mobile applications. More than just a load balancer, Pulse vADC transforms applications to make them more secure and responsive, and integrates with the Pulse Access Suite. This solution creates a powerful end to end solution for secure access to all applications, regardless of location or type: reducing costs, while improving user satisfaction and security.

## Pulse Secure Access with Pulse Secure vADC

The Pulse Secure Access Suite helps enterprises boost worker productivity with seamless, mobile access to the data center and cloud while offering complete visibility and control over access to the corporate network and application resources. Key capabilities include:

- Unified policy across wired and wireless connections, personal and corporate devices, remote and local access
- Embedded certificate-based authentication with per-app VPN provides a seamless user experience
- Integrated access control with SAML facilitates seamless use of cloud and datacenter services/applications
- Unified control and visibility of access for desktop and mobile devices
- Ensure only authenticated users and secured devices have access to the corporate network and IT resources
- Profiler to discover network endpoints for verification and remediation

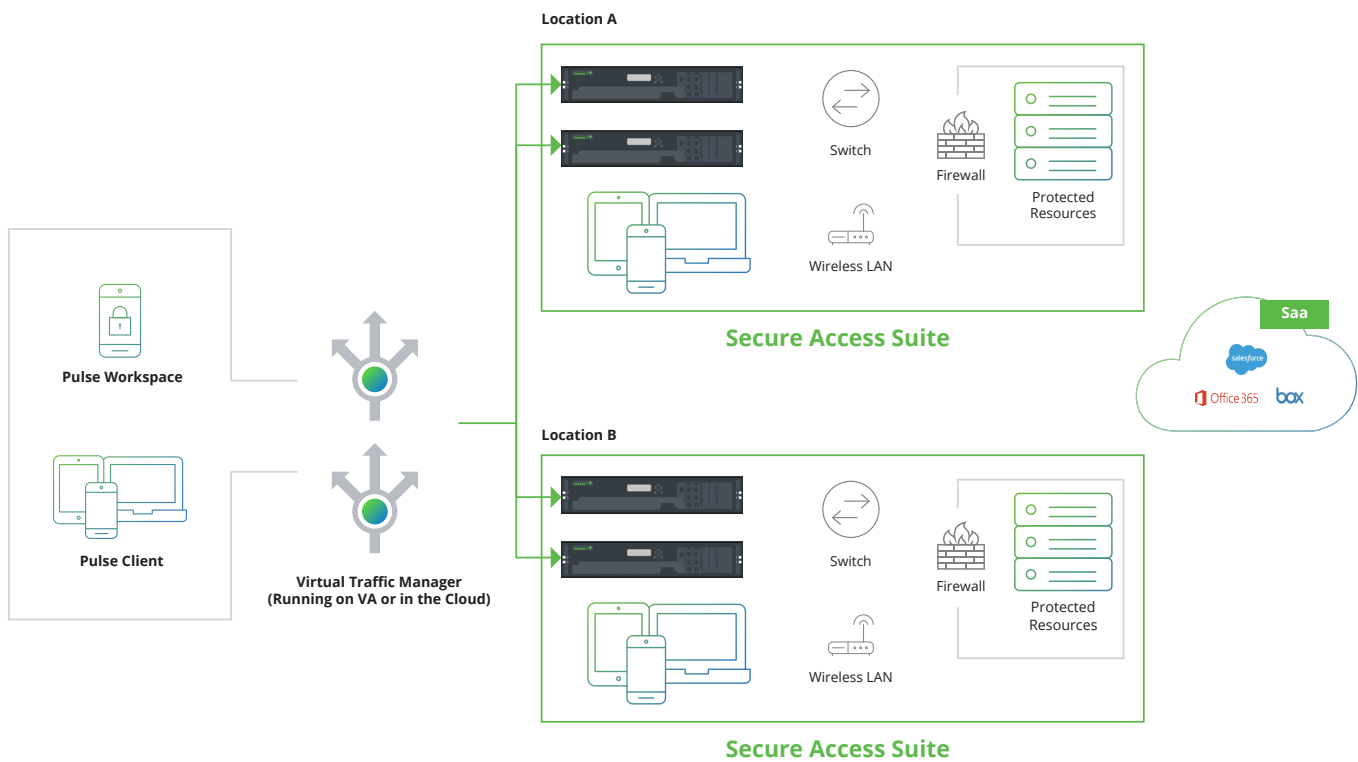
Once enterprises achieve Secure Access, users enjoy the benefit of being increasingly mobile and can work from anywhere in the globe from their BYOD devices. However, the challenge for global IT organizations is to build out a highly scalable and resilient architecture to support capacity and performance, while keeping the TCO (total cost of ownership) in check as more capacity is needed.

Pulse Secure meets the scalability challenge by introducing the **Pulse Secure Virtual Traffic Manager (vTM)** into your application architecture. Pulse vTM enables the delivery of a highly secure and responsive solution to end-users with enterprise-class capabilities:

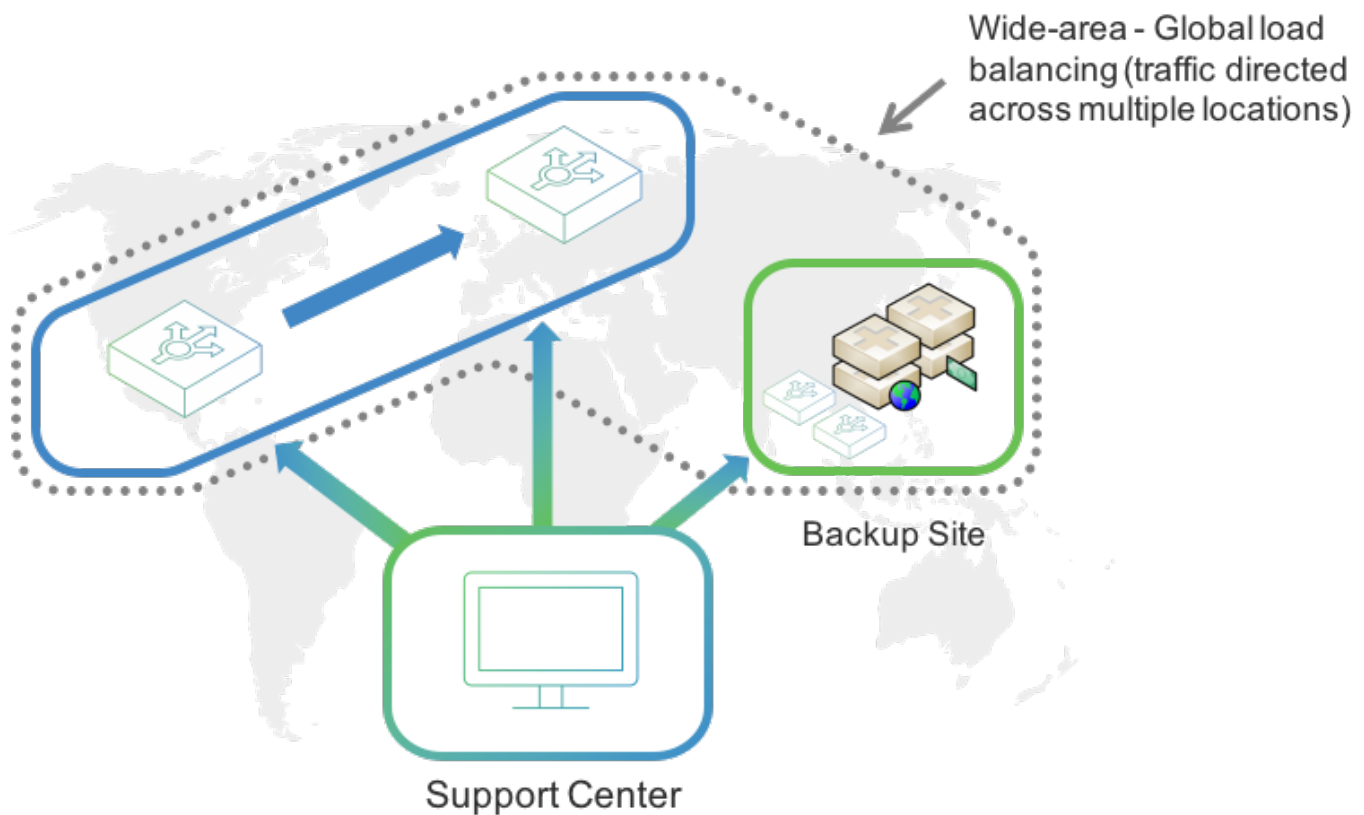
- Global Load Balancing and server health monitoring across multiple sites
- Intelligent service routing to handle traffic surges and disaster recovery
- Compatible and interoperable with existing hypervisor and cloud infrastructure
- Application-aware optimization for virtual and cloud services
- N+M clustering for increased reliability and scalability
- Micro-segmentation of users and data spaces

## Secure Access Suite with Virtual Traffic Manager Solution Architecture

With the combined solution, users from all locations in the organization have a single logical end point address to access regardless of whether they log in from home or on the road. The traffic will always be routed to the node that provides the best user experience. Even in extreme conditions such as a snow storm or failure of one of the data centers, the enterprise customers will continue to enjoy uninterrupted access to all the resources that are on-premise or in the cloud.



The combined solution of Pulse Connect Secure and Pulse Secure vADC lets users from all locations in the organization have a single logical end point address to access.



Global Load Balancing directs traffic to the optimum location.

## Global Load Balancing

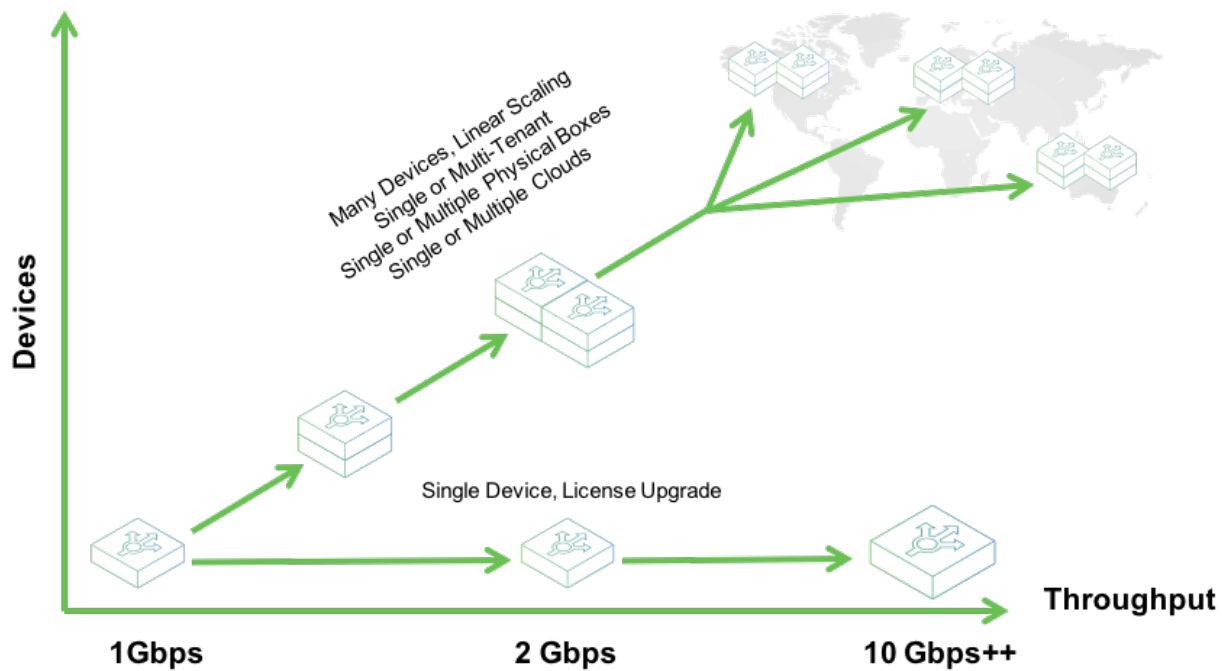
The Pulse vTM goes beyond a regular load balancer. A typical server load balancer forms a fault tolerant cluster within data centers and distributes work load evenly among the nodes in that cluster. When hardware failures occur in one or more nodes in the cluster, the remaining nodes will continue to function without end users noticing any down time. Similarly, new nodes can be added to the cluster to increase capacity and performance. This works well in an isolated data center deployment, but it is inadequate in today's global business where user traffic could shift dynamically across different geographies and time zones. The failure of one data center could create a cascading impact to the whole organization.

The Pulse vTM supports Global Load Balancing (GLB) where user application traffic is routed to multiple data centers across different locations. This removes the potential for a single point of failure caused by one data center becoming unavailable, reducing risk and improving performance. By load balancing each user to the best data center in terms of performance, proximity and other criteria as defined by the administrator, the GLB also delivers the best possible level of end user experience. For example, using vTM's GLB location based services with Pulse Connect Secure, VPN clients can reach out to the nearest VPN gateway with optimal gateway selection, greatly reducing latency of secure VPN connections.

## Cloud Portability

Cloud and virtualization technologies have freed organizations to not only move resources around their own data centers but also into more cost-effective private and even public cloud locations. However, as enterprises decide how and where to deploy applications, there are performance and security considerations that can impact their choices. Different applications have different needs in terms of availability, performance, and security, which can dictate whether an enterprise can deploy resources on-premises or in a cloud environment.

IT architects need a solution that will give them the flexibility to choose any combination of deployment options to support the varied, ever-evolving needs of their business and applications. Pulse Connect Secure with Pulse vADC provides complete cloud portability to enable organizations to build applications that are agile enough to take advantage of resources across domains, to maximize the benefits they can derive from hybrid cloud environments. Additionally, with the Pulse vADC you can enable seamless load balancing to VPN termination gateways whether they are on-prem or in the cloud.



Pulse vTM supports simple scale-out clustering.

## Simple Scale-Out Clustering

Pulse vTM has unmatched scale and performance and is able to scale-up with the latest generation of multi-core CPUs and scale out with N+M clustering for reliability and throughput. No matter what your workload, it can scale to deliver performance and security without compromise. You can configure application policies once, and the policies will be synchronized across the cluster automatically.

Whether you need to cluster for performance, for reliability or for policy synchronization, Pulse vADC allow you to scale out dynamically to meet changes in workload, changes in your cloud architecture, or to manage multiple applications in a consolidated security platform.

## Fine-Grained Access Control

Once users are authenticated into a network, there remains the question of which content users are entitled to access. While many secure document management applications support permission groups, there is still the need to track content requests, and to allow/deny based on central policies. This ability to maintain separate spaces for users and datasets based on business policies is known as micro-segmentation.

Pulse vTM can conduct a deeper level of identity verification for users seeking access to specific stores of protected information and executes policies tailored to specific user attributes. Organization can achieve this by introducing additional attribute checks derived from third-party sources, such as an organizational database containing a user's employment status, security permissions, and job function. For example, when an authenticated user logs in to a network and accesses a particular application, Pulse vTM can be configured to query an external database to verify that the user is allowed access to that application and its associated data sets.

Pulse Policy Secure compliments these capabilities but offering policy enforcement in a granular manner, such as 802.11x based authentication.

As a result, access to data becomes more segmented and subject to auditable parameters, enabling IT teams to have better visibility and a deeper level of control over who is accessing what data and how. For example, an attribute check may find that a user is not allowed access to an application or a particular set of data, or that the user is allowed access but only for certain dates and times—or only for certain subsets of data

## Solution Components

The Pulse Secure Access Suite and the Virtual Traffic Manager supports flexible enterprise deployment options: physical or virtual appliance to cloud and hybrid. They can be easily added into enterprise customer's existing infrastructure footprint and be future proof as the organization infrastructure evolves.

## Summary

As the number of malicious software and ransomware cyber-attacks increase in scale and complexity, the need for Secure Access has never been greater. With BYOD and an evolving mobile workforce across many global locations, achieving Secure Access for the whole organization can be a daunting task. With the addition of the Virtual Traffic Manager to the Secure Access Suite, the combined solution harnesses the security, scalability, high availability and more importantly the productivity boost to maximize the enterprise's return on investment (ROI). Some of our customers have already benefited from it, why wait?

## About Pulse Secure

Pulse Secure's mission is "Delivering Secure Access Solutions for people, devices, things, and services". Remote Access to data center resources has evolved to Secure Access – where the location and type of resource being securely accessed is more than just data centers, including Cloud/SaaS applications, and Mobility. Devices must be secured whether outside or inside the organization, laptop or mobile.

Pulse Secure Access Suite is a comprehensive Secure Access solution that securely connects workers to company resources and protects company devices, regardless of location – in the data center, cloud or mobile. Pulse Secure delivers access to all company resources via a single client or mobile application – dramatically simplifying access and increasing user productivity.

Pulse Secure is well positioned to deliver comprehensive Secure Access, given our 15+ years of experience, over 20,000 customers and 20 million endpoints.

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