CORERO SMARTWALL®

DDoS Protection Solutions Brief

The Truth About DDoS

The perception of DDoS is typically based on very large attacks that grab the headlines, after taking down a high-profile target with immense volumes of junk traffic. These attacks are rare, with maybe only one or two occurring globally in any single year. The rarity of these largest attacks can lead to a sense that DDoS is not so much of an issue for most organizations.

However when viewed through the lens of a real-time, always-on, DDoS protection system, the picture is in fact, very different - attacks are actually happening on a daily basis, at scale and across the globe. In reality, the vast majority of DDoS attacks are small (less than one gigabit per second) and short (less than ten minutes in duration). Only one or two percent are classed as large.

Without dedicated always-on DDoS protection in place these daily attacks, which impact business continuity and result in slow applications and failed services, can get attributed to some other IT issue. When in fact, they are preventable.

SmartWall® Real-Time DDoS Protection

Corero SmartWall® leads the industry with real-time, automatic, protection that keeps DDoS attacks at bay, without any of the downtime associated with other solutions.

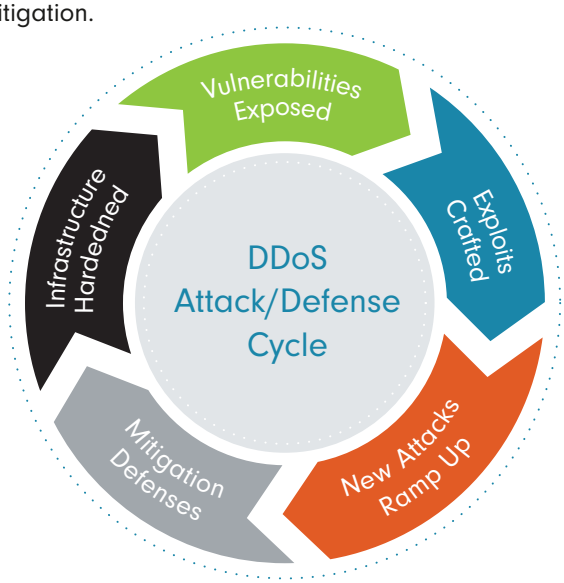
SmartWall uses a patented, innovative and automated, multi-stage detection and mitigation pipeline to ensure the highest possible efficacy. Protection is achieved while maintaining line-rate performance, to ensure legitimate traffic is not impacted by damaging false-positives, or a significant increase in latency.

Unlike other DDoS protection solutions, which rely on header-based 5-tuple flow information, SmartWall's Deep Packet Inspection looks into every bit of the packet header, plus the first 128-bytes of the payload, to deliver the most advanced DDoS attack detection, with surgical mitigation.

Business Continuity
No service or business downtime due to DDoS

Ransom Resilience
Confidence to ignore DDoS ransom threats

Traceability
Know which traffic was/ wasn't blocked as DDoS and why



Real-Time Response

Detection and mitigation in seconds, rather than the minutes or tens of minutes taken by legacy solutions, ensuring online business continuity.

Automatic Mitigation

Accurate automatic mitigation delivers lowest TCO and enables your IT and security teams to spend more time defending against other threats.

Clear, Actionable Intelligence

Comprehensive visibility with reporting and alerting for clear, actionable, intelligence on the DDoS attack activity across the network.

Highly Scalable

Flexible and highly scalable deployment options from the latest infrastructure-based enforcement, to inline and cloud.

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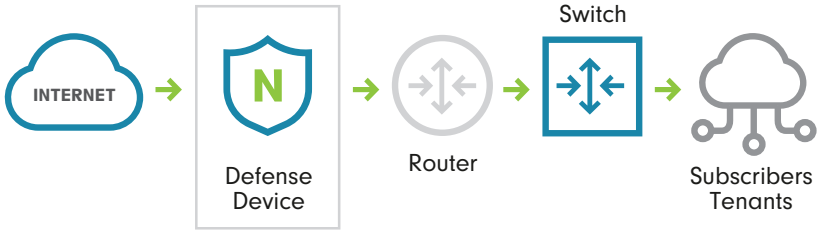
Flexible Deployment Options

SmartWall is built on three key pillars of protection; physical and virtual appliances deployed in the network's Internet data path, central intelligence that can power the line-rate filtering capabilities of the latest generation of network infrastructure devices and cloud-based mitigation for hybrid protection.

Protection Considerations

How you deploy DDoS protection is influenced by what is being protected, the topology of your IT environment and by having a solid understanding of the DDoS threat landscape in relation to your business.

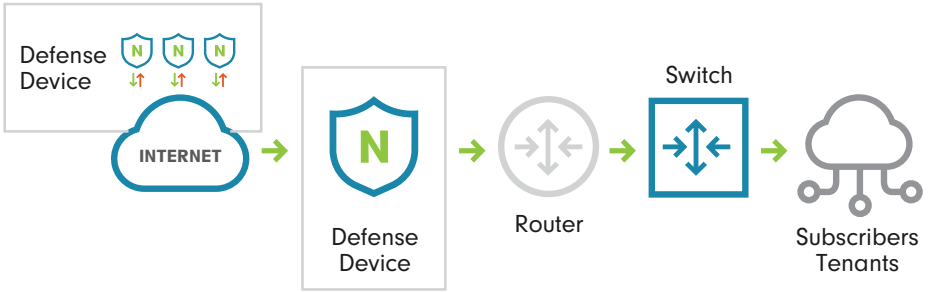
The type of organization, number of locations, geographic distribution, network topology and aggregate Internet bandwidth, all influence the techniques required to provide the most effective DDoS protection. In the vast majority of cases, always-on protection at the network edge is the most effective and accurate.



Hybrid Deployment

If the total protected Internet bandwidth is less than 10 gigabits, the on-premises solution typically needs to be augmented with cloud protection, for the occasions when an attack is larger than the available capacity, and could overwhelm it.

Where the total protected Internet capacity is measured in tens, or hundreds of gigabits, then always-on protection at the edge is often all that is required. Although, this can still be augmented with cloud protection for ultimate assurance against being impacted by the very largest attacks.



Appliances

SmartWall TDS protects inbound connections with always-on appliances that block DDoS attack packets.

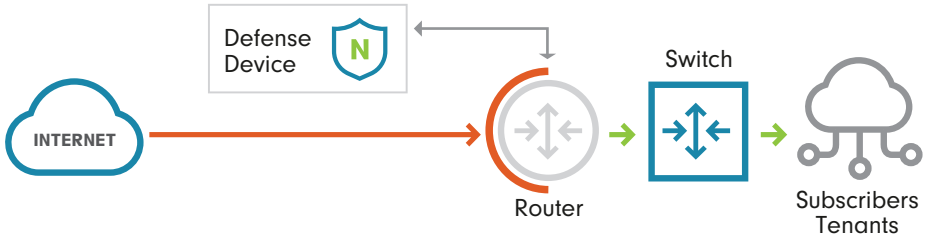
Infrastructure

SmartWall TDD protects inbound connections by enabling edge devices to block DDoS attack packets.

Cloud

SmartWall TDC protects inbound connections from saturation by blocking larger DDoS attack packets in the cloud.

For organizations, including Service and Hosting Providers, where Internet transit capacity is measured in hundreds of gigabits, to terabits, edge protection remains the most effective approach. However, deploying appliances at every connection point can become unwieldy for larger and more distributed networks. In these cases, a central DDoS detection solution which can use infrastructure-based filters to block incoming attacks at the edge provides an effective alternative, trading ultimate efficacy for maximum scale and simplicity of deployment.



Selecting the Right SmartWall® Solution

Corero's three pillars for delivering effective real-time DDoS protection are; SmartWall Threat Defense System (TDS) appliances deployed in the incoming data path, SmartWall Threat Defense Director (TDD) controlling intelligent network edge infrastructure devices capable, and SmartWall Threat Defense Cloud (TDC) for a hybrid combination of on-premises and cloud protection.

Whether you deploy TDS and/or TDD on-premises protection, SmartWall delivers fast, automatic, surgical protection against damaging volumetric and state exhaustion DDoS attacks. Combining this with TDC, for all but the very largest service provider networks, ensures SmartWall delivers effective protection against DDoS attacks of all sizes. The key benefits of deploying TDS and/or TDD are as follows:

Benefits	Appliances (TDS) for Maximum Efficacy	Infrastructure (TDD) for Maximum Scale
Capacity	Gigabits, to Hundreds of Gigabits, of Protection	Hundred Gigabits, to Tens of Terabits, of Protection
Performance	Line-rate Inspection Performance for In-Path Deployment	Sampled Mirror Inspection for Unprecedented Scale
Deployment	Deployed on every ingress path to gain full coverage	Deployed Centrally, leverage existing edge routers for full coverage
Detection	Inspects Every Packet, for Maximum Efficacy	Inspects Sampled Traffic for Scale and Ease of Deployment
Mitigation	Direct Mitigation of Detected DDoS Packets	Infrastructure filtering and FlowSpec to block DDoS Packets

SmartWall SecureWatch® Visibility

For all SmartWall deployments, SecureWatch analytics instantly shows the size and volume of packets in the attack, with granular visibility into every DDoS vector used, right down to the data in the packets themselves, if needed.

For more information on SmartWall TDS, TDD and TDC solutions download the relevant datasheet from Corero's website.

About Corero Network Security

Corero is the leader in real-time, high-performance, automatic DDoS defense solutions. Enterprises, Service Providers, Hosting & Co- Location Providers, Edge Providers and the MSSP/MSP's across the globe increasingly rely on Corero's award winning DDoS solutions. Our SmartWall solutions are the highest performing and most accurate in the industry, delivering the most automatic coverage, at scale, with the lowest total cost of ownership.

This, industry leading technology delivers scalable protection capabilities against DDoS attacks in the most complex environments, without the downtime associated with other solutions, while enabling a more cost-effective economic model than previously available. For more information, visit **www.corero.com**

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