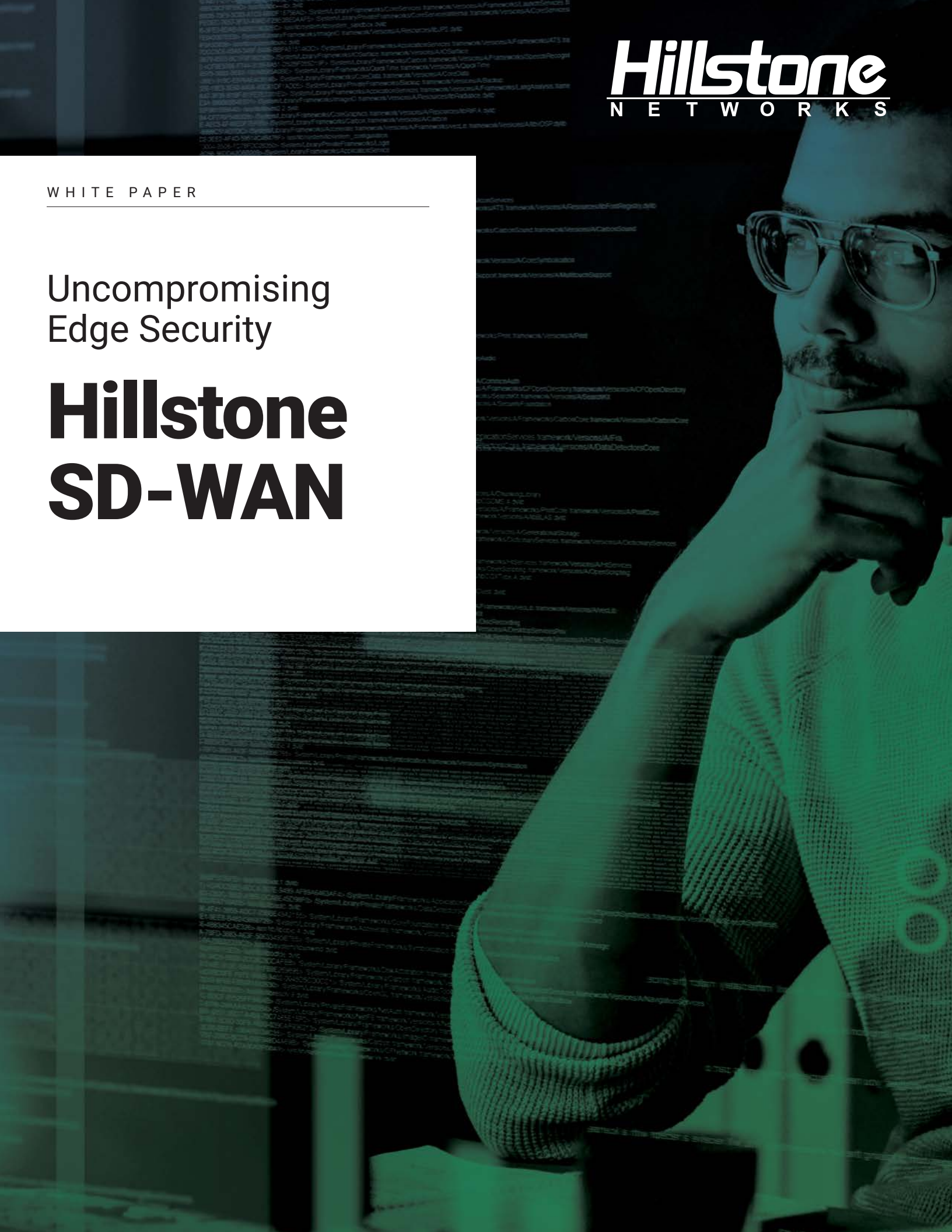


WHITE PAPER

Uncompromising
Edge Security

Hillstone SD-WAN

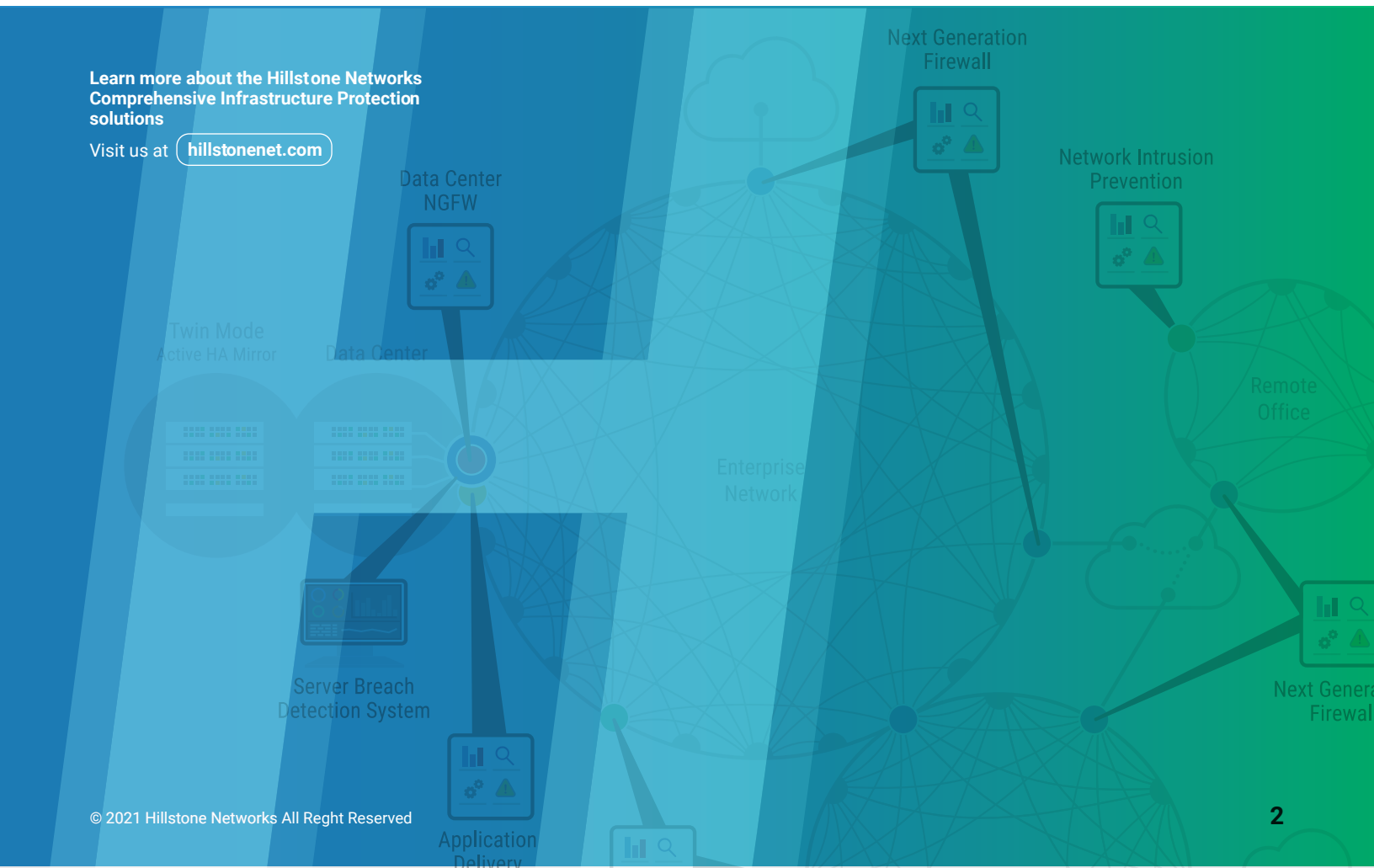


Introduction

IT teams today find themselves in a post-breach world where the edge is both an opportunity and a threat. New threats, innovative malware, intelligent phishing attacks, and disparate insecure IoT devices put pressure on security teams to ensure improved visibility, compliance, and protection at the edge. At the same time, networking teams are often faced with requirements to quickly stand up new sites in diverse locations, provision bandwidth at those sites cost-effectively, and ensure that the network is more reliable than before. The software-defined wide area network (SD-WAN) is a solution that promises to solve all these problems, but the key to success is picking the right SD-WAN solution.

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Why SD-WAN?

Unsurprisingly, because SD-WAN can replace a collection of different boxes at the edge while providing unparalleled agility, security, and performance, it is increasingly popular with enterprises today. IDC, a leading market research organization, predicts the SD-WAN market will experience an astounding compounded annual growth rate of 40.4 percent, rising from \$833 million in 2017 to \$5.25 billion in 2023¹.

One of the underlying reasons for this growth is SD-WAN's ability to use multiple connections effectively. Specifically, SD-WAN's multilink capabilities allow you to use cheaper broadband internet links to augment your existing MPLS networks, easily doubling and tripling bandwidth at a fraction of the cost of upgrading MPLS links. SD-WAN can also provide MPLS-like reliability, without the higher cost of MPLS, by sending traffic over multiple direct internet connections, one of which can

be a 3G/4G/5G LTE-based wireless connection. This multilink capability allows for high reliability, even in the face of natural disasters that take down wireline networks. Further, SD-WAN lowers operational expenses through support of zero-touch provisioning and fast deployment. Moreover, because all related functions are managed from a single centralized management console, ongoing configuration and maintenance are a fraction of the cost of managing legacy WANs.

With so many benefits, the case for adoption of SD-WAN is clear. However, choosing the right SD-WAN solution involves more than just these table-stakes features. Because it governs your enterprise defenses at the edge, one of the most critical capabilities of any SD-WAN solution is its security feature set.

What is SD-WAN?

In essence, SD-WAN is the next-generation WAN edge solution for enterprises. Fundamental to an SD-WAN solution is the ability to route traffic over multiple wide-area links, including multiple broadband internet connections, private MPLS, and even mobile data (3G/4G/5G LTE). Additionally, an SD-WAN solution needs to be easy to deploy and centrally managed. And finally, an SD-WAN platform usually provides Layer 3 networking features like routing and Layer 4-7 features including firewalling and advanced security.

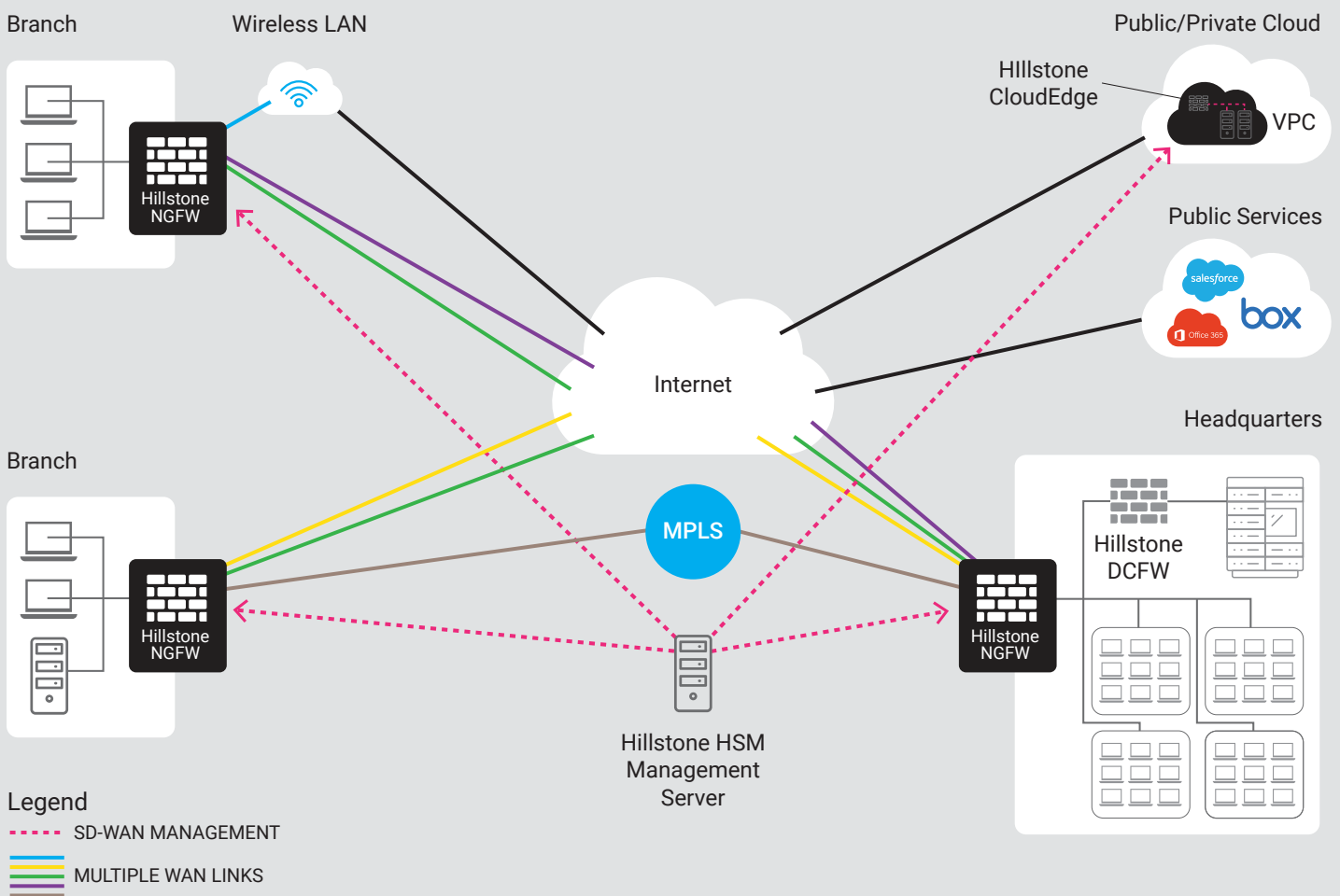
¹ <https://www.idc.com/getdoc.jsp?containerId=prUS44203118>

<https://www.businesswire.com/news/home/20190724005072/en/SD-WAN-Infrastructure-Market-Poised-Reach-5.25-Billion>

Hillstone's SD-WAN Offering

Hillstone's network edge solution provides strong and comprehensive security for SD-WAN deployment. In addition to a robust security platform that provides the visibility to **see** what's going on at the edge, our SD-WAN solution also provides the intelligence to **understand** which of the 4,000+ supported applications are running,

and **act** to dispatch traffic with the right level of security. Hillstone's SD-WAN solution also provides centralized management, zero-touch provisioning, and superior quality of service (QoS), with active link monitoring for fast, simplified and protected SD-WAN networking.



Features and Benefits

Centralized Management with Zero-Touch Provisioning at the Edge



Centralized Policy Management
 Zero-Touch Provisioning
 Simultaneous Deployment

Hillstone recognizes that a solution that is hard to deploy and a burden to maintain will not sit well with CISOs and their NetOps/SecOps teams. Hillstone Security Manager offers centralized policy management and global visibility, allowing a one-click set-up and deployment from a central console. Our advanced security template can be deployed simultaneously across multiple remote devices with push-button simplicity. This centralized control is coupled with an effortless zero-touch deployment that allows units to be easily brought up in remote locations where experienced IT staff might not always be available.

Initial setup on devices can be configured and generated from Security Manager and sent to the field on USB drives. Upon bootup, branch devices automatically connect to the Security Manager, complete authentication, acquire assigned licenses, and upgrade to specific software releases without any assistance from IT professionals. Devices can join or form a large service network and start processing business requests in minutes rather than days or weeks. Zero-touch provisioning greatly reduces the complexity and overhead of large-scale deployment.

Seamless and Comprehensive Encryption

Hillstone’s SD-WAN solution provides centralized VPN connectivity and security policy management. VPN setup and branch security policies can be configured via the Security Manager, then automatically deployed to branch devices through initial configuration or subsequent configuration updates. By enabling hub-and-spoke VPN from corporate HQ to remote sites, or even virtual private clouds within large public clouds, Hillstone’s SD-WAN solution

provides comprehensive protected communication to give CISOs peace of mind that all communication is encrypted. The SD-WAN solution also brings mobile users into the fold, ensuring secure communication across all endpoints.



Seamless Setup
 Seamless Deployment
 Seamless Operation

Award-Winning Enterprise-Grade Security Foundation

While Hillstone’s SD-WAN features are quite substantial, the true differentiation is that the solution is first and foremost a leading security platform. With an integrated next-generation firewall and unique breach and malware detection capabilities, Hillstone’s security components are used by more than 20,000 enterprises worldwide and recognized by leading analysts like Gartner across multiple solutions classes.

Our extensive security solutions include physical and virtual next-gen firewalls, intrusion prevention, breach detection,

antivirus, sandboxes, URL, botnet C&C protection and content filtering, and have been battle-tested in many vertical industries worldwide. The advantage of using Hillstone’s solution is that the links in the chain of security, routing, and WAN optimization appliances throughout the enterprise are converged into a single platform. SD-WAN customers can rest assured that the heart of Hillstone’s SD-WAN foundation is a trusted and proven secure core.



Security Platform
Integrated NGFW
Breach & Malware Detection

Popular SD-WAN Use Cases and Scenarios

With a superior security foundation, Hillstone’s SD-WAN solution can serve many use cases and industries effectively. While not limited to the use cases that we’ll discuss here, these scenarios can serve as a blueprint for how Hillstone’s SD-WAN can help regardless of your industry.

For Healthcare

For healthcare organizations, SD-WAN can provide value across both clinical and research operations. There is a trend toward healthcare systems becoming more distributed to improve access for patients. With the decentralization of healthcare facilities, Hillstone’s SD-WAN platform can connect disparate locations with the appropriate level of bandwidth

and performance while ensuring privacy and security.

For example, large file transfers for radiology and electronic health records (EHRs) require significant bandwidth, but MPLS links might be cost-prohibitive. Hillstone’s secure, encrypted SD-WAN over cost-effective internet broadband can provide the necessary performance while remaining Health Insurance Portability and Accountability Act (HIPAA) compli-

ant. In addition, the security capabilities can extend into the clinical network, securing IoT devices such as smart monitors, smart carts, and other medical devices, thus protecting those devices from malicious attacks and preventing and detecting the breach of sensitive patient information.

Popular SD-WAN Use Cases and Scenarios (Continued)

For Retailers

Retail stores have unique needs surrounding compliance and scalability. Retail store locations need to address Payment Card Initiative (PCI) compliance to protect customers' credit card information. Compliance requires both encryption of traffic and network segmentation to ensure that only the right systems and people have access to networks that carry credit card information. Other security capabilities provided by the SD-WAN solution include malware and breach detection, which are not only desirable but necessary given the recent high-profile breaches at large retail chains.

Retail stores vary from large warehouse locations for home improvement stores to pop-up retail establishments within unconventional locations. These pop-ups, which are often seasonal, require fast and secure SD-WAN deployment. Hillstone's SD-WAN, through flexible use of direct internet access and 3G/4G/5G backhaul options, can provide the rapid ad hoc location provisioning needed by these retail businesses.

In addition, advanced SD-WAN capabilities like application prioritization can help ensure that revenue capture and key customer-experience applications run with an appropriate quality of experience.

For example, payment card transactions can be assigned the highest priority across the WAN. Intelligent prioritization can also be used to ensure that real-time purchase data or customer in-store interactions are quickly sent upstream to enable real-time omni-channel tracking and other adaptive retail solutions.

For Service Providers

Service providers looking to provide value-added services are turning to SD-WAN, and Hillstone's platform offers compelling benefits. Communications and managed service providers today face a market where small and medium-sized businesses need SD-WAN solutions, but don't necessarily have the expertise to evaluate or deploy such solutions. These smaller businesses have little to no IT expertise but need reliable and secure connectivity for their digital assets. In ad-

dition, customer connectivity is a prime target market for service providers.

Hillstone's platform forms the foundation of a managed SD-WAN service, with centralized management for easy day-to-day operations and management. More importantly, our single-platform solution provides advanced security along with all the requisite SD-WAN features, while providing a cost-effective converged option for these small to medium-sized businesses. Moreover, Hillstone's advanced multilink management plus applica-

tion-aware prioritization can improve the quality of experience and performance of the SaaS offerings commonly used by smaller businesses, improving employee productivity.

Popular SD-WAN Use Cases and Scenarios (Continued)

For Government Agencies

SD-WAN can be a cost-effective option for government agencies with multiple remote locations. State and local governments often rely on private MPLS networks to provide secure and reliable access. However, with an SD-WAN solution like Hillstone's, cost-effective broadband connections can be a secure, reliable alternative to private links. Similarly, for developing countries where remote offices need to be stood up

quickly in hard-to-reach areas, SD-WAN's connection flexibility in using 3G/4G/5G LTE connections can provide fast and secure access. Hillstone's platform can be an advantage in these situations, making remote locations resilient to attacks even if qualified IT staff are not on-site.

Finally, for state or federal agencies that are involved in disaster management, the same connection flexibility that uses 3G/4G/5G LTE connections can enable a secure SD-WAN mesh that can

be brought up during natural or human-made disasters. This SD-WAN mesh provides a reliable, secure emergency network that can enable appropriate QoS controls to ensure critical calls and data transfers get through to cloud-based disaster management applications.

Why Hillstone? Value!

For a growing number of enterprise and service provider CISOs, their choice is Hillstone Networks' Comprehensive Infrastructure Protection solutions based on both the technology and TCO.

With our security heritage and innovative solutions, our rich portfolio of SD-WAN-ready solutions include an NGFW platform for remote branch locations, as well as enterprise NGFWs and Data Center Firewalls for headquarters protection. The CloudEdge virtual NGFW is ideally suited for virtual private clouds (VPC) and the Hillstone Security Management Platform (HSM) ties all components together into a complete SD-WAN platform.

Hillstone Networks' SD-WAN solutions provide ease of use, visibility, intelligence and protection to ensure enterprises can comprehensively see, thoroughly understand and rapidly act against cyber-threats. Recognized by leading analysts and trusted by over 18,000 global enterprises, Hillstone's solution suite effectively covers the enterprise from edge to cloud while improving total cost of ownership. With its mantra of "security that works," Hillstone's innovative products provide value out of the box. And in today's post-breach world, Hillstone has built a reputation for holistic solutions that help CISOs manage risk and provide assurance that their enterprises are well-protected.

Hillstone

NETWORKS

Visit www.hillstonenet.com to learn more
or contact Hillstone at inquiry@hillstonenet.com

