# INCREASE YOUR AGILITY – AND MOVE FORWARD WITH SD-BRANCH

**HughesON**™

SD-Branch enhances your distributed retail organisation's collaborative efforts with an agile, adaptive and managed network. SD-Branch virtualises the network infrastructure of your central site and distributed branch stores, outlets and offices. Management of the whole is fully integrated and centrally controlled:

**Routing**

**IT security**

**Switching**

**Wi-Fi**

**Apps**

## Demand better orchestration of smart store technology

We are in the era of the connected consumer. The face of retail has changed rapidly in recent years with various technologies being deployed, such as in-store Wi-Fi, IoT applications such as demand-aware fulfilment, cashierless payment systems, movement tracking, automated reality etc. This has naturally led to a proliferation of technologies at branch level. Each technology typically has its own integrated hardware/software appliance to handle rapidly increasing performance requirements and advanced features. As a result, there are typically several network boxes at retail branch locations, often from multiple vendors and with unique management interfaces.

# SD-BRANCH DELIVERS AN AGILE, ADAPTIVE AND MANAGED NETWORK

Whereas a software-defined WAN is strictly geared towards data flows over the transport layer, SD-Branch extends orchestration and control one layer upwards to cover the network functions that support smart retail. With SD-Branch, these functions can now be managed at the head office level and jointly orchestrated over both sides of the WAN connection. The ability to view and manage these network functions together helps streamline operations and makes your IT resource more efficient.

SD-Branch thus makes the "think global, act local" approach real. Everything can be managed from a central point but thanks to the disaggregated nature of the solution, different capabilities for different branches can easily be implemented locally.

## Operational agility

For a variety of reasons such as changing demographics and localised fluctuations in business, as well as technology innovations. retailers operating several stores or complete chains need flexibility in their networks. The most compelling advantage of SD-Branch in retail is the increased operational agility it brings to address these challenges.

Because SD-Branch Solutions are delivered through an integrated technology stack, you can benefit from quicker and more efficient change whether that is due to expansion with defined blueprints for different sizes and types of branch, or you are re-structuring to optimise operations.

## Reduced cost of ownership

Retailers who implement SD-Branch Solutions will see benefits in terms of reduced capital and operational expenditure. With a managed site-per-month service you will also have greater cost transparency.

Reducing or eliminating the need for trained IT personnel to visit remote branch locations results in significant cost and time savings. SD-Branch Solutions also reduce hardware costs by deploying software on consolidated hardware rather than on many more standalone devices.

Software virtualisation gives you the ability to right-size hardware requirements for each branch, and the hardware has a smaller footprint, an important consideration for space-constrained branches.

Moreover, SD-Branch Solutions reduce power consumption because one power-efficient platform replaces many appliances.

An SD-Branch Solution designed and implemented by Hughes Network Services Europe will not only reduce the cost of support and maintenance contracts, but also streamline their management, because you only need to deal with one supplier.

## Enhanced performance

As the network moves from being a commodity to become a pivotal element in delivering excellent customer experience, high availability of applications and unbroken internet access increasingly drive that experience. Centralised, software-defined policy control, traffic prioritisation, and dynamic adjustment as network conditions fluctuate ensure that users and IoT in the branch always get high performance connectivity across the entire branch infrastructure.

Enhanced visibility using a single window to monitor all of your devices enables you to understand traffic flow patterns on both LAN and WAN, detecting if devices are not working or are inactive, and maintaining accurate asset management for network, end-user and IoT devices.

## Scalability to handle innovation

Recent trends in retail clearly indicate that the level of traffic is pushing ever upward as new IoT applications are deployed, but demand can fluctuate up or down and you may need to give priority to different apps over time. With SD-Branch the performance of any function can be tuned up or down by changing processor allocation or adding hardware resources.

As the IoT gains momentum and businesses are expected to utilise an increasing number of apps and devices to generate the experience customers now demand, SD-Branch solutions offer the ideal platform for building out a secure, reliable IoT strategy across an entire distributed estate.

## Network security

Security is an essential element of network estates. As security-dependent new technology enabled by the IoT meets old legacy technology and the variety of connected devices increases, there is a higher risk of security breaches. Retailers are most vulnerable to hacking at branch level, where security is most often weakest, while the expanding number of interfaces may disproportionately increase your vulnerability.

On the other hand, if branches deploy their own security appliances, firewalls etc. at local level, this only imposes complexity, a lack of transparency at HQ, and consequently, further administrative burdens on IT.

Hughes SD-Branch Solutions give you robust security at the network edge without compromising business outcomes.

With Hughes SD-Branch Solutions you can coordinate network security across the distributed branch network so that it meshes effectively with security at HQ or the data centre. With a Hughes managed deployment, your traffic is monitored for issues and alerts are raised so action can be taken. Branch security operations are best when fully automated and when they leverage centralised and cloud-based intelligence.

## The best SD-Branch Solution for you

A wide range of providers offer SD branch services. Each provider takes a slightly different approach, as SD-Branch currently has no standard implementation. Hughes has therefore selected the best of them in order to offer a solution that best meets your needs. These include Cisco, Fortinet and Lancom, among others.
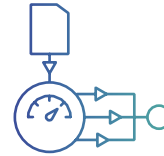
# SD-BRANCH FUNCTIONS IN RETAIL

Our SD-Branch solutions encompass every aspect of networking connectivity for a retail store or branch office – WAN, LAN, Wi-Fi, and security. Working together with Hughes, your IT department can better understand the user experience for each company location, monitor traffic over WAN links, and proactively resolve end-to-end network problems.
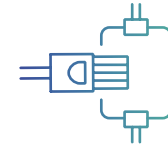
## The software-defined technology of an SD-Branch solution covers:

### SD-WAN

Automatic setup of VPN tunnels and multi-service networks, fast roll-out of new branches, and secure connection of external service providers – managed centrally for all locations via the cloud.

### SD-LAN

Automatic, dynamic, and secure deployment of any kind of multi-service network on switch ports, and fully automatic configuration of individual switches across sites after one-time definition of the required VLANs.

### SD-WLAN

Automatic Wi-Fi configuration for innovative in-store concepts, integration of new access points or applications such as hotspots, definition of the SSIDs, authentication method and bandwidth limitations. The SD-WLAN is easily and rapidly rolled out to all branches with auto-configuration.

### SD-SECURITY

Centrally orchestrated cybersecurity and compliance via the management cloud, central definition of the security rules for a network, and connection to cloud-based security solutions.

# A NAME YOU CAN TRUST

Our flexible networking solutions combined with our multi-vendor approach means we take modern technology capabilities and identify the right solution to meet our customers' commercial needs. Our long-standing relationships with our customers, which span many years, are testament to our collaborative and quality focused approach. We deliver our services throughout Europe with offices in the UK, Germany and Italy and offer a single point of contact with a single, aggregated service level agreement for all sites irrespective of size or location. As the European business unit for Hughes, we work in collaboration with our sister business units in North America, South America, India and International to deliver fully integrated solutions on a global scale.

**For further details about our producrts and services contact us today.**

## HUGHES WORLDWIDE CAPABILITIES

**$1.85 BILLION** Dollars in revenue

Supporting **425,000** business and government sites worldwide

**2,100** employees globally

**7+ million** terminals of all types delivered in **more than 100 countries**

Deployed **35,000** SD-WAN sites to date

Customers on **6 continents**

**4** decades of networking expertise

# WANT TO KNOW MORE, GET IN TOUCH?

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## About Hughes Network Systems

Hughes Network Systems, LLC (HUGHES) is the global leader in broadband satellite technology and services for home and office. Its flagship high-speed satellite Internet service is HughesNet®, the world's largest satellite network with over 1.3 million residential and business customers across the Americas. For large enterprises and governments, the company's HughesON™ managed network services provide complete connectivity solutions employing an optimized mix of satellite and terrestrial technologies. The JUPITER™ System is the world's most widely deployed High-Throughput Satellite (HTS) platform, operating on more than 20 satellites by leading service providers, delivering a wide range of broadband enterprise, mobility, and cellular backhaul applications. To date, Hughes has shipped more than 7 million terminals of all types to customers in over 100 countries, representing approximately 50 percent market share, and its technology is powering broadband services to aircraft around the world. In Europe alone, where we have been helping our customers to achieve optimal value from their network infrastructure for more than 30 years, we manage 55000 sites, across 28 countries supporting more than 5 billion transactions every year. Headquartered outside Washington, D.C., in Germantown, Maryland, USA, Hughes operates sales and support offices worldwide, and is a wholly owned subsidiary of EchoStar Corporation (NASDAQ: SATS), a premier global provider of satellite operations. For additional information about Hughes, please visit www.hughes.com and follow @HughesConnects on Twitter.

## About EchoStar

EchoStar Corporation (NASDAQ: SATS) is a premier global provider of satellite communication solutions. Headquartered in Englewood, Colo., and conducting business around the globe, EchoStar is a pioneer in secure communications technologies through its Hughes Network Systems and EchoStar Satellite Services business segments. For more information, visit echostar.com. Follow @EchoStar on Twitter.

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