HUGHES. Europe

THE ULTIMATE RETAILER'S GUIDE TO SD-WAN

PART THREE:

HOW SD-WAN TRANSFORMS EFFICIENCY IN MULTI-SITE RETAIL

RETAIL IS CHANGING FAST

Retail is changing fast, irrespective of the context. Cloud-based applications are transforming productivity and are critical to meeting the increased expectations of tech-savvy consumers who are now the majority of your customers.

Wherever and whenever customers contemplate a purchase, they expect a more immersive and responsive experience with fast fulfilment of all their expectations across every channel. Yet as a retailer you will struggle to bring your business the technologies you need unless you have a fast, resilient and unified network with totally reliable connectivity.

For any retailer with dispersed sites, SD-WAN is becoming the only sensible option. SD-WAN is revolutionising the way businesses benefit from their networks, employing advanced software to maximise capacity through the intelligent use of bandwidth that prioritises traffic and delivers consistent application availability.

Without SD-WAN, hard-pressed IT departments will struggle to deliver complex digital transformation projects and meet Senior Management demands for optimised efficiency. As the entire business sets out on a new course so it can thrive in an era of more intense competition and seamless blending of channels, the pressure on networks mounts steadily. It is why major organisations are now turning to SD-WAN to ensure all their applications and essential cloud-based technologies function at optimum levels of efficiency every hour of the day.

As the third instalment of Hughes Europe's Ultimate Retailer's Guide to SD-WAN, this e-book examines four use-cases to show how Hughes is employing SD-WAN to help a diverse range of major retail businesses achieve new levels of excellence. With their networks transformed without having to undergo any significant infrastructure upheaval, organisations are fully future-proofed and completely confident that critical back-end technologies will work perfectly all the time.

Areas covered inside:

Transforming the customer experience in retail finance

SD-WAN expertise overhauls store connectivity for a major retailer with hundreds of branches

A Restaurant chain with thousands of branches uses SD-WAN to future-proof it's applications

The fast-paced, highly-competitive world of convenience retail needs SD-WAN

TRANSFORMING THE CUSTOMER EXPERIENCE IN RETAIL FINANCE

The Challenge:

Let's consider a newly-merged consumer finance business with hundreds of branches. It has a jumbled network created bit-by-bit over the years which now struggles to cope with a vastly increased volume of digital applications. Worst of all, it cannot facilitate the development of branch-level interactions with clients using voice technology over the internet (VoIP), which are becoming vital to the business model. These VoIP calls are critical to the improvement of the customer experience but the network's legacy MPLS components are inflexible when trying to adopt cloud applications and make it expensive to increase bandwidth, frustrating any expanding use of customer experience enhancing technology such as video-interaction or Guest Wi-Fi.

Already branches find that application blackouts and brownouts are common, while initiatives such as guest Wi-Fi, Office 365 and the introduction of loyalty apps are not feasible. Expanding the network through leased line technology is expensive, so the business needs a far more cost-effective, unified, next-generation network architecture with greater bandwidth. There's only one solution – SD-WAN.

The Solution:

A managed SD-WAN solution resolves all these problems, migrating the organisation entirely to new broadband connectivity with multiple transports. Managed services cover every aspect of the project including provisioning, installation, monitoring, security, maintenance and program-management along with helpdesk support.

Each branch is provided with a secure Hughes Branch Gateway for optimal resilience as well as dual broadband for maximum site availability, supported by various types of transport including LTE, cable, DSL, fibre and satellite.

Using Hughes' ActiveTechnologies™, advanced algorithms guarantee that the links are optimised as appropriate, ensuring that business-critical applications are prioritised and always available. Backup transports no longer remain under-used but are intelligently utilised to give the network its new agility without compromising resilience or security. Branch traffic is carried to the customer datacentre, with Hughes providing a backup NOC.

The Benefits:

From constrained connectivity that was unable to support its digital ambitions, this company has moved to a network that carries 2.4 million voice calls per week without difficulty. Even when individual circuits are experiencing problems, voice calls are not affected.

The average Mean Opinion Score (MOS) for the new VoIP reported by customers has hit 4.35 out of five with 99.8 per cent of calls achieving a MOS rating in excess of 3.5. Each branch has such effective connectivity that the technology is taken for granted, delivering faster performance for credit checks, risk-modelling and loan applications. The new robust and stable network enjoys 10-to-20Mbps at each branch, which fully supports its growing bandwidth requirements, Costs are reduced and more predictable through solution delivery via a fully Managed Service. A network that was struggling has been transformed into one that is excellent by any measure.

"A NETWORK THAT WAS STRUGGLING HAS BEEN TRANSFORMED INTO ONE THAT IS EXCELLENT BY ANY MEASURE"

SD-WAN EXPERTISE OVERHAULS STORE CONNECTIVITY FOR A MAJOR RETAILER WITH HUNDREDS OF BRANCHES

The Challenge:

If you are a long-established retailer with nearly a thousand large stores and annual revenues measured in billions, the challenges of upgrading networks to boost productivity and meet evolving customer expectations can be immense. Managing costs effectively in a legacy MPLS network of this type is notoriously difficult at a time of change.

Without a faster network with much greater capacity, you will not be able to implement the cloud-based applications and services that are increasingly critical to maintaining consumer appeal and empowering staff. Network availability and resilience have to be radically improved.

When such retailers address the problems, they often find the organisation's highly complex, long-distance network throws up multiple challenges. Managing a large number of network access providers (NAPs), who supply last-mile connectivity to branches, is particularly difficult. Without greater path diversity, obtaining increased bandwidth and resilience is impossible.

The Solution:

In one such case, Hughes has successfully worked with a retailer to design and implement SD-WAN architecture to encompass 46 underlying NAPs and assure its provisioning, monitoring, security and maintenance, supplying program management, as well as helpdesk services.

A single highly-resilient Hughes Branch Gateway streamlines and improves secure SD-WAN functionality, eliminating the need for manual configuration while ensuring that the network remains compliant with regulatory requirements covering payments and data protection. This is a challenge requiring dual broadband with complete path diversity based primarily on LTE and cable, but also fibre and further options, as necessary.

Optimisation of the SD-WAN network is achieved through intelligent application routing to metered secondary transport. When network brownouts start to slow down critical applications, adaptive multi-path FEC (forward error correction) and intelligent replication kick in to get everything running optimally. Branch traffic is carried to the retailer's datacentre with Hughes providing a backup NOC. It is a complete SD-WAN solution.

The Benefits:

Since Hughes installed the new SD-WAN solution, this retailer, has enjoyed significantly increased quality of service and bandwidth, along with vastly improved application resilience.All achieved on a cost neutral basis when compared to the original MPLS network.

The customer now enjoys the ease and simplicity of interfacing with just one company – Hughes – but benefits from the connectivity and services provided by all the underlying NAPs.

This is how Hughes is delivering major benefits to distributed retailers with very complex networks in which branches are often connected to multiple datacentres, with specific application routing. In this case, the retailer's system is now capable of rapid adaptation, boosting quality of service ratings for critical applications.

"FORWARD-THINKING RETAILERS CAN ENJOY INCREASED QUALITY OF SERVICE, SIGNIFICANTLY INCREASED BANDWIDTH, ALONG WITH VASTLY IMPROVED APPLICATION RESILIENCE"

A RESTAURANT CHAIN WITH THOUSANDS OF BRANCHES USES SD-WAN TO FUTURE-PROOF ITS APPLICATIONS

The Challenge:

You are a restaurant company with thousands of branches in the fast-food and casual dining sectors. But you have problems. You need increased bandwidth for every one of your premises so you can use technology to improve the experience for customers and staff alike.

The situation is further complicated because the chain includes owned and franchised restaurants across multiple brands, with every branch wanting to deploy more advanced customer loyalty programs and use cloud-based applications to improve employee-retention. At the same time, the business has to ensure complete compliance with all the stringent PCI security regulations for corporate-owned and franchised restaurants alike – a tough requirement. And on top of that, security has to be beefed up with next-generation firewall technology.

The Solution:

What do you do? Well, one of our customers has implemented a managed, secure SD-WAN network, ensuring near 100% uptime at each location through diverse transports.

The managed service includes provisioning, installation, management, monitoring and maintenance of the entire project along with the operation of a helpdesk. To ensure the high level of uptime required, dual broadband is provided across a range of transport types in a network comprising 44 unique broadband access suppliers.

This more diverse provision of paths includes the deployment of satellite connectivity for 78% of traffic, along with DSL, fibre, cable and additional transport options as required. This is true flexibility that ensures real speed and capacity across the network. The Hughes HR gateway supporting multiple transports is embedded with a next-generation firewall to give the entire network the right level of security.

The Benefits:

All restaurants, whether owned or franchised, now have a robust and flexible network which has consolidated services to drive greater efficiency. Our customer has successfully lowered costs and enabled the deployment of multiple new cloud-based applications. The inclusion of a next-generation firewall in the SD-WAN branch gateway protects the brand's reputation and supports customer loyalty throughout the franchise network.

By optimising cost and performance in an outstanding managed service, Hughes has reduced the time the restaurant chain's IT team spends on network problems and provides a dedicated service to monitor and support each and every restaurant. With all the advantages of faster and more resilient applications and less time devoted to infrastructure problems, the chain has been able to concentrate on improving its customer engagement and staff training, future-proofing it for the era when cloud-based applications are essential revenue drivers.
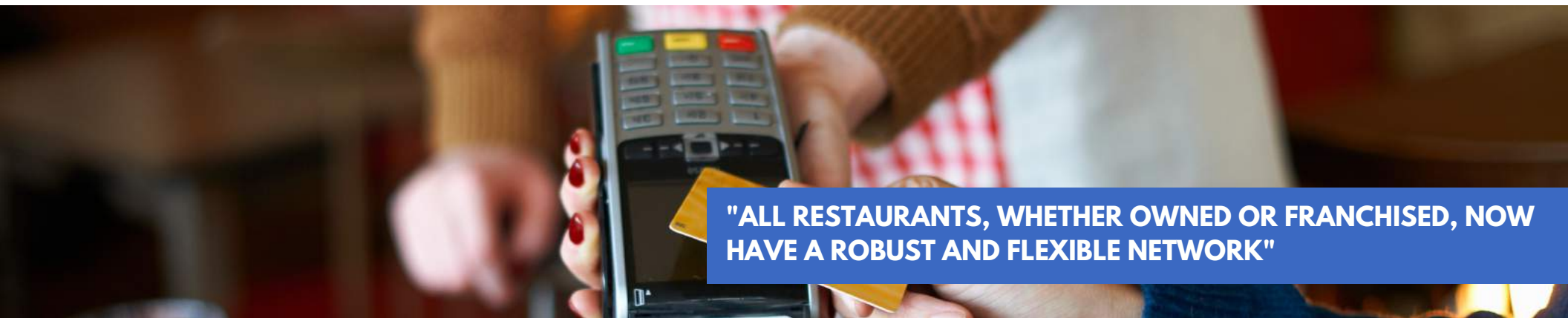
"ALL RESTAURANTS, WHETHER OWNED OR FRANCHISED, NOW HAVE A ROBUST AND FLEXIBLE NETWORK"

THE FAST-PACED, HIGHLY-COMPETITIVE WORLD OF CONVENIENCE RETAIL NEEDS SD-WAN

The Challenge:

Speed is essential for a 24/7 convenience store chain which has hundreds of branches such as at petrol stations, predominantly in urban areas. If customers cannot get what they want quickly, they go elsewhere very easily. But at the same time, the business wants to expand the range of offerings,, improve staff productivity and use advanced sales analytics to improve its supply chain operations and increase revenues.

Delivering such sophisticated business applications across a network lacking sufficient capacity and availability is a huge challenge.

We supported a customer that had a legacy network infrastructure comprising satellite (VSAT) and slower-speed DSL broadband connection. The business needed to update its network because broadband connection speeds were only 76% of what was expected, reducing the business's ability to ensure availability of critical applications such as payment systems. The move to a new style of high-volume convenience store also meant that these problems had to be rectified urgently.

The Solution:

The answer to these challenges was a single high-performance, fully-managed SD-WAN solution, employing Hughes' HR Branch Gateway and ActiveTechnologies (ActiveQoSTM ActiveClassifierTM ActiveCompressionTM) with the same DSL broadband circuit and 4G wireless backup.

ActiveQoS provides intelligent, real-time Quality of Service (QoS) and prioritisation of crucial network traffic, while ActiveClassifier automatically identifies new applications and removes any requirement for manual rules configuration. ActiveCompression delivers powerful multi-stage adaptive compression to add virtual bandwidth and increase performance over affordable broadband.

The Benefits:

Implementation of this SD-WAN solution has transformed the business of this particular retailer, dramatically increasing throughput speeds, boosting uplink by 585% compared with the previously anticipated broadband speeds and by up to 800% when compared with the speed that was actually delivered. The result is that every store application is supported with one high-performance, fully-managed network solution including 4G wireless backup. Levels of resilience have been optimised to the extent that when the network switches over to 4G, staff using applications are unaware. The solution also gives the customer enhanced levels of security through next-generation firewall capabilities such as intrusion detection. The reliable and speedy transmission of data across this SD-WAN network has enabled advanced basket-analysis to be conducted centrally for each store, while the entire business benefits from fast, secure and resilient payment systems.

Future business application enhancements will also be more straightforward, given the capacity of the network. Managed services provision also provides complete reassurance, with any potential problems nipped in the bud before damage is done. Costs have also been reduced, both as a result of heightened network performance and from reduced management overheads.

IMPLEMENTATION OF THIS SD-WAN SOLUTION HAS TRANSFORMED THE BUSINESS, DRAMATICALLY INCREASING THROUGHPUT SPEEDS

THE CONCLUSION

Our case studies demonstrate how Hughes' SD-WAN has the power to transform retail in any sector. Even companies with hundreds or thousands of dispersed sites and complex routing can deploy SD-WAN to build fast, resilient and unified networks fit for the digital era. As these case studies show, Hughes' experience in overcoming tough challenges makes it the ideal partner for all retailers with large numbers of branches or sites. Using advanced software and Hughes' unique combination of deep technical expertise and hard-earned experience, any large retail organisation in Europe can rapidly and cost-effectively future-proof its network through the power of SD-WAN.
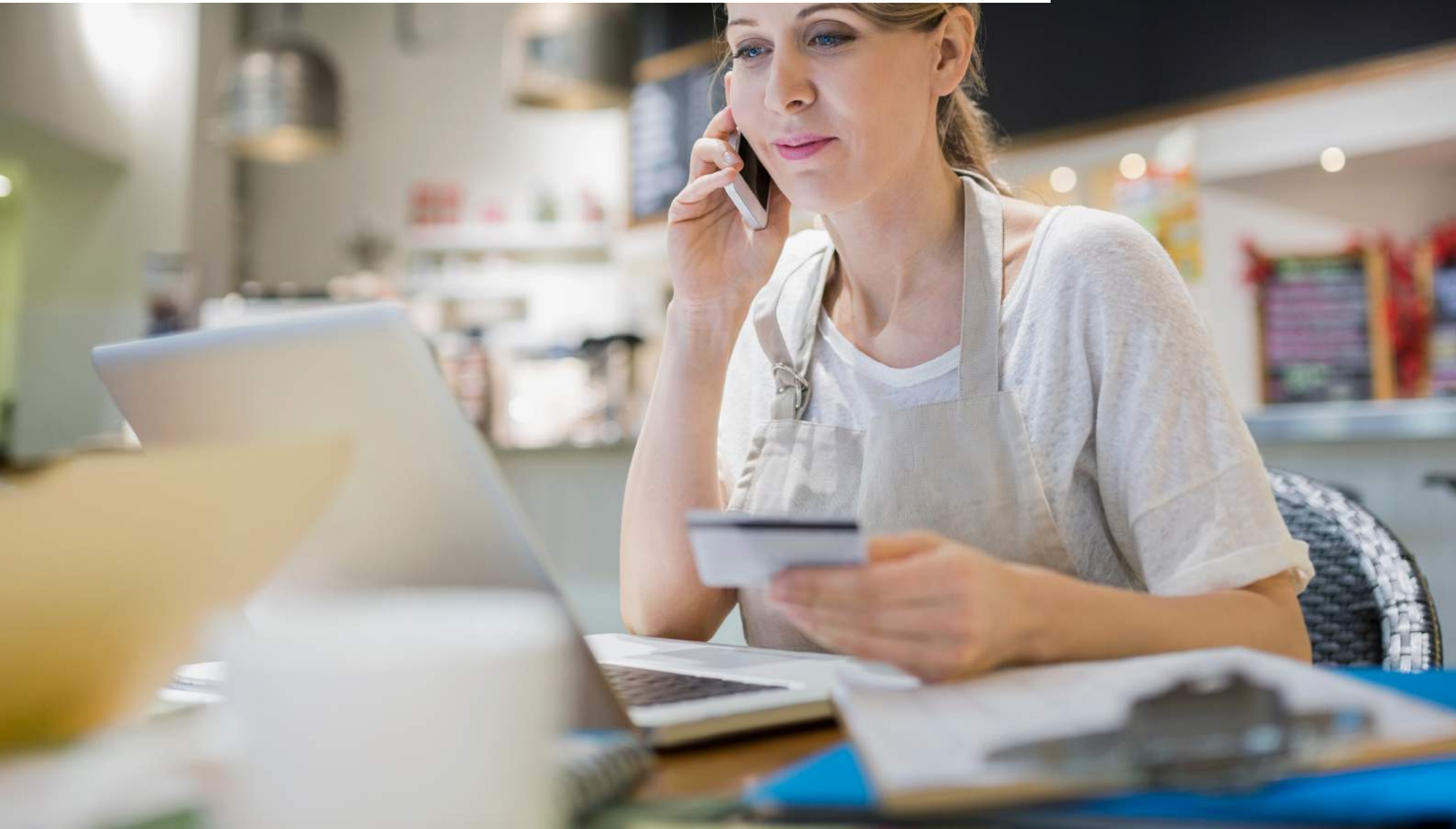
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HUGHES Europe

ABOUT US

Hughes Europe helps retail organisations and other distributed enterprises to maximise productivity and enhance the customer experience by providing optimised managed networks for multi-site environments. We work with our customers to design, implement and manage wide area networking solutions.

Our flexible connectivity solutions combined with our multi-vendor approach means we can 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.

We specialise in delivering secure WAN connectivity, network resilience, optimisation and SD-WAN to help our customers deliver the application availability they need to deliver the highest levels of employee productivity and Customer Experience.

We are part of Echostar Corporation and a division of Hughes Network Systems. The Group has a $1.89bn turnover with operations in 100 countries around the globe. 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.