

WHY SD-WAN IS KEY

We know the retail landscape is changing. For years we've read about the slow demise of the high street yet, while there have been a few casualties, the majority of retailers continue to keep high streets, retail parks and shopping centres very much alive and there have even been cases of online-only retailers such as Amazon and Birchbox investing in physical stores.

In November 2017 the Daily Telegraph reported that a growing number of online retailers are moving on to the high street with brands such as French fashion retailer Sèzane exploiting the emerging concept of showrooming to generate customer interaction with physical products. Similarly, the Telegraph reports that brands such as Dyson and Samsung who have traditionally sold through specialist retailers are now using their own physical stores to engage directly with customers.

This move from exclusively online or indirect customer interaction to direct physical engagement with customers illustrates that the concept of delivering a blended customer experience is becoming increasingly important. The challenge for retailers now is to take the best of both worlds and deliver that blended experience seamlessly and reliably enough to add value to those customer relationships.

As the second instalment in Hughes' Ultimate Retailer's Guide to SD-WAN, this e-book aims to outline how and why the modern retail environment is changing and explores why SD-WAN might be a key technology solution to help retailers remain competitive while delivering against brand and marketing objectives.

Areas covered inside:

Digital Transformation and the Customer Experience

Overcoming the challenges of the modern retail environment

* Internet retailers turn to physical stores as online sales look set to decline, 14 November 2017



DIGITAL TRANSFORMATION AND THE CUSTOMER EXPERIENCE

IT or Marketing - who owns the customer experience?

Retailers are seeing a rising customer demand for an augmented experience both online and in store. In a world of same-day delivery and the ability to order items from the home at the touch of a button or through a voice-activated assistant, customers are now expecting to experience greater levels of interaction, with the same or better levels of convenience from in-store environments. While the ability to browse, compare, configure and purchase products online effectively removes the requirement to visit a physical retail store, customers still want to see and touch products and this 'instant gratification' provided by the in-store experience can often accelerate a purchase decision.

Of course, retailers are well aware of this. The challenge lays first in identifying the right in-store technologies, from a plethora of solutions on the market, that will provide return on investment for their specific business and meet or exceed these new customer expectations. And secondly, it lays in providing these applications at the point of use in a reliable and consistent way so that the customer experience is enhanced and not compromised.

Many of these experience-enhancing applications and technologies, whether provided direct to customers or to employees to add value to their interactions with customers, are dependent on robust and reliable connections either to the cloud or to the corporate datacentre. In this new environment, the network has become strategically important as it provides the foundation for the seamless provision of applications, from wherever they might be hosted, to the point of use.

Faced with this significant reliance on the network to consistently perform at a level that meets business objectives for the customer experience, many retailers will find that their current network provision at branch level will struggle to make the grade. SD-WAN is a solution that can help by enhancing the performance of the existing network, providing resiliency across the WAN and ensuring high availability of applications for both customers and employees.

Transforming the customer experience can't be achieved without transforming the digital environment. Transforming the digital environment has to focus on the network. And that's why SD-WAN is as important to the Marketing Director as it is to the IT Director.

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INNOVATION IS AT THE HEART OF THE CUSTOMER EXPERIENCE AND SD-WAN IS THE ENABLER OF RETAIL INNOVATION

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DIGITAL TRANSFORMATION AND THE CUSTOMER EXPERIENCE

Adding a dose of emotion

Retailer marketers are tasked with presenting customers with exceptional experiences that ensure customers engage with products and complete purchase transactions. What's more, maximising basket value at every visit further drives profitability, making this a key driver of customer experience strategies. Retail IT Directors are tasked with delivering digital transformation projects that enable this strategy to become a reality In the time-frame required by the business.

There are many examples of retailers getting this right, creating open, experiential environments featuring innovative technologies such as digital shelf displays, interactive screens or virtual assistants to engage the customer. Here, the store visit is not based on on transaction but engagement, driving loyalty and advocacy.

Some retailers, however, are still getting it wrong and this is evident in the high-profile closures of some of the most established retail chains across Europe. Some retailers may have been slow to recognise that the context in which they operate has changed, others may have simply missed the opportunity to close the gap between their physical and online channels. Whatever the reason, retailers who have not yet embraced the opportunity to use technology to create an in-store experience that encourages customers to visit, stay and spend, may find it difficult to compete in the new retail reality.

With indications in the market suggesting that online sales are set to slow and the arrival on the high street of historical online only competitors, getting this blended customer experience right is not going to be simple but it is going to be vital for survival.

Digital transformation will provide the key to getting this right. But digital transformation must include focus on the branch network if it is going to succeed. And often branch networks have historically been towards the bottom of the priority list for investment.

SD-WAN is a solution that can help transform your existing branch network to make it ready to support the digital transformation journey necessary to realise the in-store customer experience you need to compete in modern retail environments.





OVERCOMING THE CHALLENGES OF THE MODERN RETAIL ENVIRONMENT

Network Connectivity - The Challenge

Existing WAN deployments can already struggle with keeping business critical back-end technologies connected across the retailer's estate, such as those technologies enabling a centralised view of stock and payment services. When it comes to implementing the bandwidth hungry in-store tech that enables engaging in-store experiences, legacy WANs are often simply not capable of providing the reliability and robustness required to support always-on application availability.

Application performance can also be negatively impacted during times of network congestion, such as busy periods when large volumes of customers connect to the store Wi-Fi. In this scenario, a struggling network will degrade the customer experience unless means of prioritisation are implemented on the network. From customer facing in-store tech such as portable payment devices, digital kiosks and digital signage, to customer and staff personal devices, the rising volume connecting to networks has retailers struggling to deliver enough bandwidth to support them. And it's not just the amount of bandwidth that can affect the customer experience, it's also the quality.

Congestion and high traffic volumes can affect the quality of the network meaning that both high priority, business critical applications and customer experience enhancing technologies could see degradation of service during peak times. Traditional branch networks have not generally been deployed with the intelligence or capability to dynamically adapt and deal with these new demands.



OVERCOMING THE CHALLENGES OF THE MODERN RETAIL ENVIRONMENT



Network Connectivity - How can SD-WAN help?

At first glance, it would seem that creating more network capacity would be the obvious solution. However, existing WANs can be easily optimised to manage the increased flow of network traffic more effectively by implementing an SD-WAN solution. This technology uses all available bandwidth, including back up links and because it is transport independent, it can switch traffic between broadband, MPLS, 3G/4G or any other type of connection using multiple links for critical traffic to ensure performance and transmission across the WAN. This enables maximum bandwidth utilisation from existing capacity.

As a network overlay, SD-WAN simply applies smarter management principles. Take any motorway that has peak hours of heavy traffic. If traffic is heavier in one direction in the mornings and heavier in the opposite direction in the evenings, it would make sense to switch the flow of traffic in the middle lanes, creating more lanes on the busy congested side of the motorway and a faster route for all who are travelling on it.

SD-WAN effectively works in the same way, optimising the network to find more dynamic routes for all the data travelling across it by prioritising traffic and sessions flowing across the network to make sure that critical applications take priority. It will dynamically assess the best available route based on link performance and application characteristics and direct traffic automatically across that route. This means that instead of critical applications waiting in a queue on a slip road behind less important traffic until they can get onto the motorway, they are sent directly to their destination via an alternative route.

It adds priority routes for priority traffic in times of congestion to maintain critical application performance, avoiding blackout and brownout conditions for priority network traffic. It automatically creates high speed diversion routes for priority traffic when a lane is closed and directs lower priority traffic via different routes - ensuring traffic continues to flow but the emergency services take priority.

This is great news for the Marketing Director who wants the customer's in-store digital experience to be seamless and great news for the IT Director who wants to leverage existing investments and make resourcing more efficient.

OVERCOMING THE CHALLENGES OF THE MODERN RETAIL ENVIRONMENT

Network Security

The Challenge

With the increasing popularity of internet cloud applications being used to deliver enhanced customer experience, retailers will inevitably need to focus on network security. While traditional WANs will usually have an onsite router at the network's edge, there is often no security provision within the router to ensure the retailer's security protocols are applied to traffic moving between the WAN and LAN. This could inevitably lead to the need to provision a next generation firewall (NGFW) to handle key security functions such as IDS/IPS, application control and antivirus capabilities. With an increasing reliance on direct internet access from the branch environment, the risk of a security issue emerging is heightened meaning retailers need to address branch security in a far more considered way. Add to this the potential for a data security breach that has a direct adverse effect on brand loyalty, and we can easily see why cyber security has become a key issue for organisations.



The Solution

SD-WAN, whether cloud enabled or edge enabled is designed with security in mind. Both deployment types will handle retail security needs in different ways with different vendors providing different approaches to the way that security is managed. Because SD-WAN moves the control panel from local hardware to a central management layer that sits across the entire estate it can help retailers to manage their security more efficiently and effectively. With a range of tools such as central policy management for scale and consistency and micro-segmentation of applications which makes it much more difficult for an attack to spread quickly. The relocation of control to the software plane with SD-WAN makes dealing with the enhanced security required to operate in our cloud centric world much easier and less resource intensive.

Key takeaway on how to deliver a blended customer experience:

To provide more memorable and effective customer experiences, retailers will become increasingly reliant on technologies that increase convenience while placing greater strain on networks currently tasked with supporting business-critical technologies. In doing so, they must consider how their networks can support those technologies. By adopting the right SD-WAN solution, retailers can provide next level customer experiences through a flexible, agile and always available network

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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.