

Securing the Customer Experience

Managed Network Services Set the Stage for Post-Covid Payments Connectivity

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Introduction: The Retail Model Evolves

Accelerated by the impact of a Novel Coronavirus, retailers around the globe are facing changes to their operating models, dramatic shifts in customer preferences and expectations, and far greater risks brought about by the increasing shift to digital.

Though many changes such as contactless payments and mobile wallets were occurring organically, the pandemic has hastened adoption across all demographics. Loyalty programs, new payment options and promotion applications have grown in complexity as the move to omnichannel commerce has gathered momentum.

Retail is not a simple buyer/seller transaction anymore, and in the face of these changes, network criticality demands a renewed approach and re-prioritization for everyone from the small shop owner to the multinational chain operator.

Some retailers are re-imagining themselves as “destinations” that demand interactive, immersive shopping experiences with amenities. Guest wi-fi, “available online” offers, and EV charging stations are just some of the enhancements to the value-added customer experience. Throw some augmented reality in there and customers are fully engaged with expectations that will never go back to the way things were even a year ago.

The challenge for retailers is understanding which of these technologies and behaviors are here to stay, how they impact the customer journey, and how to deliver a secure customer experience in this changing world. Not only is choosing the right technology a challenge, but implementing the technology to its full potential is crucial to deliver on customer expectations while meeting business imperatives.

This eBook has been compiled to explore the challenges and opportunities facing retailers in a post-covid world and the role not only of new technology but the opportunities afforded by working collaboratively with a Managed Network Service Provider (MNSP).

Key Terms

MPLS	Multiprotocol Label Switching
MNSP	Managed Network Service Provider
POS	Point-of-Sale
SaaS	Software as a Service
SD-WAN	Software-defined Wide Area Network
PCI DSS	Payment Card Industry Data Security Standard
PaaS	Platform as a Service
IaaS	Infrastructure as a Service



Covid Drives Consumers Toward Digital

The pandemic shifted technologies and customer behaviors, upended the online/offline/instore customer experience, and turned the entire buyer/seller relationship on its head.

Commerce transformation was certainly rolling right along before Covid, but this black swan event forced everyone to suddenly act like risk-taking early adopters years sooner than they might have expected. Hundreds of millions of people around the world were suddenly willing to start buying online, and ready to try just about anything from contactless points of sale and mobile wallets to click and collect and curbside delivery options.

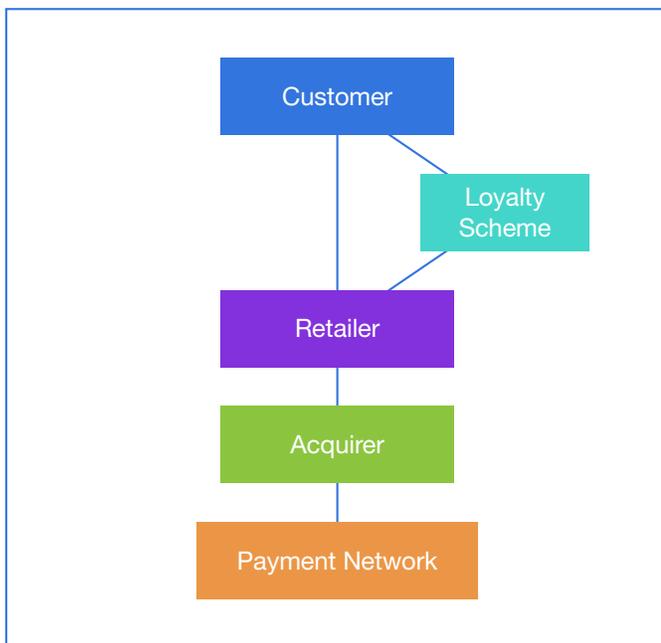
For retailers, this meant a shift in mindset, and adapting to changing customer demands. In a recent survey commissioned by Fortinet and TNS* 71% of retailers reported adoption of mobile apps, contactless payments or eCommerce portals in response to the pandemic. The same survey found that these three technologies will remain post-pandemic.

According to a recent whitepaper from Juniper Research** contactless payments will continue to rise, with 34% of all mobile devices to use contactless payments by 2025. The research also forecast that, by 2025, contactless and eCommerce payments will account for 50%, or an estimated \$5 trillion, of transactions.

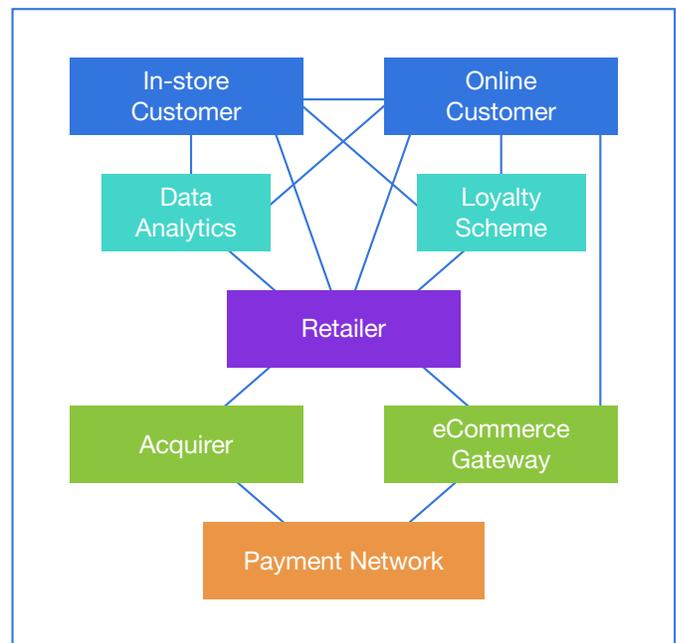
The new behaviors and technology options are coming on fast, and are having great impact and influence on the ever-changing customer journey and experience.



Traditional Model



New Model

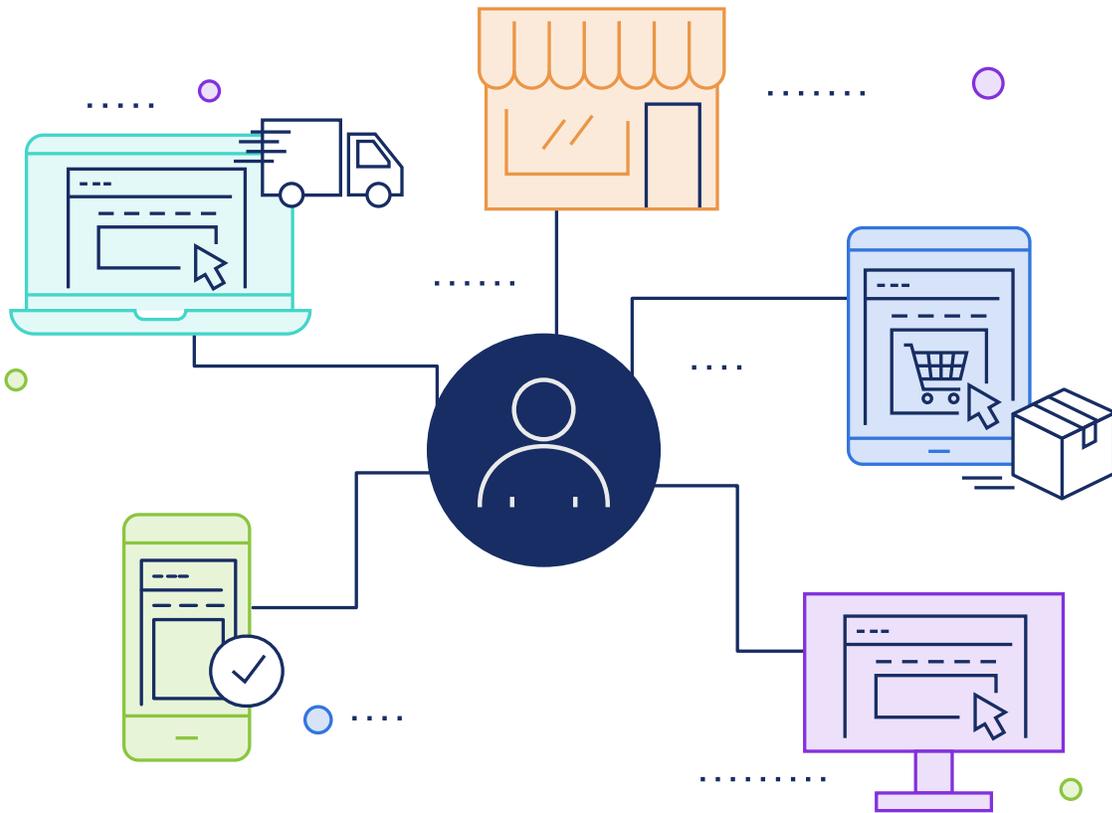


Source: Juniper Research

*Retail Security & COVID-19 Industry Survey 2021
 **Digital Wallets – Transforming the Way we Pay?

Understanding the Omnichannel Challenge

As the retail payments infrastructure evolves, the lines are blurring between physical and digital storefronts. Multi-faceted customer touchpoints are increasingly complex, and creative point-of-sale (POS) solutions like click and collect, curbside pickup, buy now/pay later, subscription models, and cutting-edge loyalty programs are becoming more popular.



Demand for high availability, and the performance to accommodate new and improved critical applications, puts tremendous pressure on a network. When the slightest glitch or inconvenience can cause a negative customer experience, there is the growing threat of high-risk customer dissatisfaction, especially with their direct and increasing participation in product and service reviews and social media feedback loops.

Across all demographics and geographies, from small shops to multinational stores, buyers are now more willing than ever to shuffle their payments preferences and experiment with new models. Buyers are also far less willing to put up with any breach or network disruption. They have perhaps reached zero tolerance for any merchant's inability to accept just about any form of payment, any how, any way, any time, and anywhere in any country.

Technology Trends

A quarter century after Multiprotocol Label Switching (MPLS) changed the payments connectivity game, and after Covid crushed five years of technology adoption into one, we've officially arrived at digital transformation, and the brave new world of omnichannel commerce.

As a result of the accelerated move to digital, retailers scrambled to react to rapidly changing customer demands for more security and convenience, and faster and more reliable connectivity. To stay ahead of the digital transformation adoption curve, they found the need to decouple even further from the limitations of hardware and legacy networks, despite the continuing predominance and efficacy of incumbent MPLS.

Three key technology trends are driving digital transformation in the retail space:



1

Cloud and Software as a Service (SaaS) Migration

From back-office applications such as Windows 365 to loyalty programs, stock inventory to customer and transaction data, migration to cloud and SaaS based programs has gathered pace. Adoption has been driven by the shift in retail model and the transition to a 24/7 business.

2

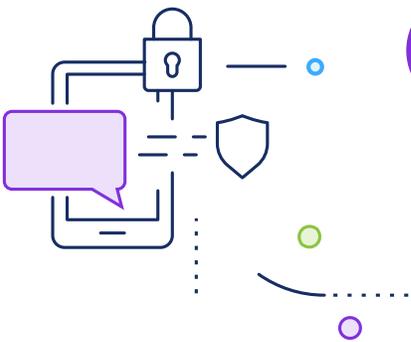
SD-WAN Adoption

The shift in consumer behavior, coupled with the evolution of the retail model, has led retailers to adopt Software-defined Wide Area Networks (SD-WAN). Dynamic, private networks share bandwidth across connection points, centralize control and security, allow for creative zero-touch environments, all while processing mission-critical network intelligence in the cloud. The increasing shift to digital is forcing existential improvements in retail operations. Network criticality has reached a boiling point and SD-WAN is quickly becoming the new standard that's able to handle the hyperscale fluctuations and operational demands.

3

MNSP Collaboration

With today's greater complexities upon us, an MNSP can be a vital partner, providing not only a tech stack that is fit for purpose, but in reducing the burden on the retailer. When you partner with an MNSP all implementation and management is taken care of by a team of experts, which improves service delivery and quality of services, while taking the onus of network management off an internal IT team completely. This frees up your IT team's time, allowing them to focus on functions more relevant to the core business of your business. In the modern age, when retail is more focused on customer experience than transactions, this can make a meaningful difference.



Focus on Your Core Business

As retailers, banks and acquirers adapt on the fly, they are well reminded of the classic technology advertising call-to-action: **focus on the business of your business.** With the cloud and the proliferation of SaaS, Platform as a Service (PaaS), and Infrastructure as a Service (IaaS) solutions, we're out of the data center and living on the edge of networks now. There is too much code, data complexity, devices and attack surface vulnerabilities for retailers to ignore the need for continuous integration, deployment, orchestration and managed oversight of payment ecosystems that a fully digital network now provides.

Businesses Face a Choice – Managed Network Service vs. DIY

It's not quite the end of the road for MPLS, but the protocol's performance will inevitably degrade in trying to meet these new business imperatives. Retail's integration with MNSPs over SD-WAN enabled networks will reduce the burdens of the omnichannel, cloud-based commerce technology stack.

The alternative to partnering with an MNSP is DIY. Choosing to go it alone places the pressure on the in-house IT team, and full responsibility for deployment, implementation and network management sits with your internal resource; resource that may be better served focusing on enhancing customer experience and driving business growth.

MNSP	DIY
<ul style="list-style-type: none"> • Enhanced management and monitoring • Responsible for upgrades and updates • Reduced compliance burden • Telco Carrier Agnostic • Increased security, reliability and resilience • 24/7/365 support • Improved resilience and geographic redundancy • Simplified contracting 	<ul style="list-style-type: none"> • Compliance burden • Responsibility falls on in-house IT team to deploy, implement and maintain with no added support • Increased risk with network sitting on internal resource

SD-WAN Leading the Way

Unlike the MPLS network standard, this new software-defined network edge infrastructure separates the control plane from the data plane, yet SD-WAN technology incorporates a wide range of traditional functions like routing, next-gen firewalls and application optimization.

The efficiencies gained with managed service solutions on top of SD-WAN networks, and the fast adoption of this new commerce reality, will take the merchant community and their customers to the next paradigm shift.

Covid crushed the curve and made everything more complicated in the short term, but the possibilities with today's new managed payments networks are making this exciting future possible now.

Delivering a Secure Customer Experience

The shift to online transactions and greater online activity in general has increased the opportunities for criminals. Daily headlines of devastating privacy breaches and ransomware attacks have captured the public consciousness, and the security and privacy frameworks themselves like Payment Card Industry Data Security Standard (PCI DSS), General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA) are on the radar with merchants and customers alike. The absence of these seal-of-approval requirements can be dealbreakers for buyers when sellers can't provide assurance or confirm their certifications.



Secure cloud access is the name of the game, and retailers should consider only store connectivity solutions that are scalable, and agile enough to respond in this dynamic environment. In addition to secure internet connectivity, the ideal solution should:

- Mitigate hacks and ransomware attacks
- Provide next generation firewall (NGFW) solutions
- Deliver highly available and highly secure two-way cloud connectivity
- Authenticate and encrypt through IPSEC tunneling
- Provide anti-virus protection with anti-malware and spyware
- Allow for URL filtering and TLS packet inspection
- Deliver enhanced dynamic policy management capabilities
- Deliver regular firmware updates
- Support LTE—backwards compatible and remotely adjustable

The bottom line is that the modern consumer craves convenience and security. Privacy-protected, pain-free checkout, whether in-store or online and with a variety of payment methods, is expected by and for the customer. This counts as well in relation to suppliers, vendors, partners and third-party delivery companies.



Direct customer-facing benefits of collaborating with an MNSP can include:

- Improved payments acceptance
- Optimized customer experience
- Ability to offer value-added services such as in-store Guest Wi-Fi
- Support for modern cloud in-store apps and zero-touch routers
- Support for multiple in-store devices to optimize data flow
- Adaptability to changing customer traffic patterns

The burden is on the tech stack. Network resiliency, and the security that it takes to do this effectively, will be always bespoke for every organization. It will take a managed service approach to implement, maintain, and hold the system's feet to the fire in performance, oversight, reporting and managing customer and stakeholder expectations.

Choosing the Right MNSP

Technologies that can help businesses meet today’s networking demands are readily available. The key to success is in its deployment and implementation.

Though change always requires effort and risk, working with an MNSP with a portfolio of managed global connectivity and payment orchestration services reduces the burden and optimizes the performance and maintenance for network security, uptime and operational resilience. Of course, with the benefits come complexities, and now more than ever retailers would be wise to partner with a Level 1 PCI-certified service provider to handle their mission-critical payments connectivity.

Addressing the following considerations will inform key buyer decision points for working with a managed network and security systems provider:

- Choose a partner with a global footprint and commitment to operate within the appropriate security assurance frameworks like PCI DSS.
- Plan your digital transformation strategy around your private network’s unique vulnerabilities, characteristics and capabilities.
- Select a provider with global wireless access and relationships with multiple carriers.
- Measure the effectiveness of your MNSP relationship, compliance and governance around managed, end-to-end outcomes.
- Maximize uptime by selecting services that support and maintain geographic redundancy through global network operating centers.

Managing today’s complex eCommerce ecosystem through an MNSP allows retailers to streamline consumer touchpoints and transaction processing—and, most importantly, it disciplines their focus less on payments, and more on the customer experience and the business of their business.

Contact Our Team

TNS enables trusted connected commerce. We help accept, connect and securely process transactions for your business across the globe.

To learn more about our range of managed connectivity solutions, email solutions@tnsi.com.

