Extend POS Lifecycle and Realize Impactful ROI with VMware

Innovate faster, transform the customer experience, and proactively manage retail infrastructure
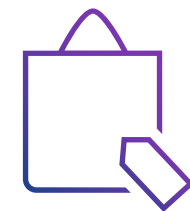
Get Started

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A changed retail environment brings a re-evaluation of POS systems

The days of transaction-oriented POS systems are behind us. Retailers are embracing omnichannel models that require integrating in-store with online purchasing and fulfillment to deliver a better customer experience. At the same time, retailers are also contending with an unpredictable supply chain and stiff competition for every customer dollar.

With retailers reinventing themselves constantly to meet rapidly evolving customer demands, establishing new omnichannel models, and navigating supply chain challenges, POS systems have become the hub for an innovative customer experience and an enabler for business priorities.

Customer experience is dominating the retail landscape as shifts in buying patterns create an even greater emphasis on driving loyalty. Retailers are looking to POS systems to innovate the shopping experience by easing and securing transactions, ensuring that products are available with real-time inventory management, and tracking business performance with access to vital data. But even as retailers adapt to new business models and undergo digital transformation, POS systems create challenges for retailers that struggle to upgrade hardware and software and manage systems at scale.

Point of sale (POS) is no longer simply the last point of customer engagement, but a business process enabler that supports inventory management, customer data collection, sales and staff performance management, and more.

75%
of consumers have tried new brands, places to shop, and shopping methods since the onset of the pandemic.

79%
of consumers already believe that customer experience is as important as a company's products or services.

1. McKinsey & Company. "The great consumer shift: Ten charts that show how US shopping behavior is changing." Tamara Charm, Becca Coggins, Kelsey Robinson, and Jamie Wilkie, 2020.
2. Salesforce, The State of the Connected Customer, Fourth Edition, 2020.

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Keeping up with in-store technology requirements is challenging

The scale of retail environments, coupled with technical debt, can hinder a retailer's ability to deliver the experience that customers demand – and that business requires for impactful digital transformation. When it comes to POS systems, retailers can't afford to be constrained by legacy systems that hinder innovative retail strategies, but you also need to take advantage of the technology investments you already have in place.

Retailers need to be able to deploy and support a POS system that leverages existing technology investments and enables a modern customer experience aligned with business strategy.
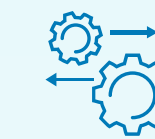
The answer: VMware Retail Solutions™
A virtualized POS system that decouples the POS ecosystem to give retailers the flexibility to make informed business decisions in real-time to drive innovation and growth.
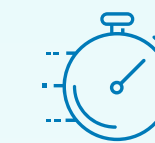
RETAIL TECHNOLOGY CHALLENGES

Retail scale can create enormous and widely dispersed systems

Hardware and software lifecycles are not well aligned

Increased agility is required to deploy new systems and solutions

Managing a retail ecosystem is a costly endeavor

Deploying updates and patches to maintain security standards is complex

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VMware Retail Solutions: A simplified and cost saving solution

Retailers have long suffered from chaotic software and hardware release cycles and operating system end of life events that create artificial horizons for the life of expensive hardware.

Virtualization changes all that. By abstracting the operating system from the hardware, VMware Retail Solutions™ maximizes hardware lifecycles while lowering TCO by:

- Enabling the deployment of the latest software, as well as updates and bug fixes, to minimize security risk and maintain compliance with PCI
- Allowing IT to manage POS devices at the scale of retail using familiar automation tools
- Adding applications or deploying new technology with minimal hardware spend
- Taking advantage of VMware Cross-Cloud Services™ and VMware Edge Compute Stack enables benefits that were previously unavailable to the retail front-of-house
- Cloud also reduces retail technology costs and complexity by moving to an OPEX model and facilitating day 2 operations without the need to deploy on-site technical resources

DRIVING IMPACTFUL MARKETING ACTIVITIES—AND BUSINESS RESULTS—WITH VMWARE RETAIL SOLUTIONS

Deploy new technologies into retail environments more rapidly

Take advantage of **new service offerings** in marketing campaigns to attract and acquire customers

Store analytics solutions can be deployed and updated rapidly to **provide advanced metrics to marketing teams**

Marketing and IT spend can be allocated to support **customer loyalty and behavior solutions**

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VMware Retail Solutions: A simplified and cost saving solution

VMware Retail Solutions extends hardware lifecycles to lower TCO and maximize ROI

Multiple retail outlets. Numerous devices. Dispersed data centers. Multiple cloud providers. With limited IT resources and numerous locations, it's no wonder that IT is stretched thin. Add to that the on-going application and operating system changes and refreshes that necessitate the replacement of expensive systems, and it becomes more challenging than ever for retailers to realize the full value in hardware investments.

The VMware Retail Solutions platform changes that by decoupling the operating system from hardware utilizing a proven virtualization hypervisor, secure VDI, and cloud management tools.

And, because VMware Retail Solutions gives IT and POS teams the ability to take advantage of the same DevOps practices utilized to simplify data center/cloud and end user compute solutions in the retail front-of-house, POS hardware can be utilized to its fullest extent—all the while providing IT with access to the latest operating systems and patches.

What does that mean for retailers? The ability to rapidly deploy the latest software solutions without compatibility concerns while lowering TCO and maximizing ROI.

VMWARE RETAIL SOLUTIONS PLATFORM

VMware Horizon®

VMware Workspace ONE®

Stratodesk™ NoTouch OS

With Workspace ONE Unified Endpoint Management (UEM), retailers can also manage the full lifecycle of any endpoint—mobile (Android, iOS), desktop (Windows 10 & 11, macOS, Chrome OS, Linux), rugged and even IoT—in one management console to support all your mobility use cases.

VMware Retail Solutions: A simplified and cost saving solution

Accelerate digital transformation with VMware POS

With the VMware Retail Solutions platform, retailers can take advantage of software defined environments to:

- Improve POS ecosystem efficiency

- Extend the life of POS hardware investments

- Simplify and ease the management and orchestration of retail environments

By taking advantage of proven VMware solutions, and leveraging existing technology investments, retailers can securely deploy new technology quickly. In addition to eliminating the need to retrain POS teams on new technology, VMware Retail Solutions simplifies the IT stack so your business can focus on innovation rather than training staff on new products and services.

VMWARE RETAIL SOLUTIONS GIVES RETAILERS BACK CONTROL AND CHOICE

End points run a thin client that is supported on existing and new hardware

POS terminals can become multi-functional devices

POS applications can be run on nearly any device without constraint

Operating systems and applications are updated centrally and easily deployed using automation

Stores are managed from the retailer's cloud of choice

VMware Retail Solutions: A simplified and cost saving solution

VMware Retail Solutions eliminates redundant hardware

In the past, POS systems took a one-to-one hardware approach, which meant that software, terminals and compute devices were often under-utilized. At the same time, deploying and supporting hardware in a retail environment requires on-site resources, which increases deployment expenses and disrupts store operations.

VMware Retail Solutions alleviates the need to deploy additional hardware and increases retail flexibility by providing the ability to run multiple workloads on hardware.

Devices that previously served one unique purpose can now be leveraged for additional workloads, and because VMware Retail Solutions results in fewer hardware devices to deploy and manage, there's no need to divert valuable IT resources for on-site visits. With VMware Retail Solutions, applications can be trialed without hardware deployment or truck rolls. And that means that IT resources can focus on strategic initiatives that support retail growth and innovation.

The VMware Retail Solutions platform allows IT teams to reimagine retail IT architecture with the flexibility to run multiple workloads from a single point of sale device – from creating a kiosk or checkout when needed, to providing a training station for staff or offering a customer loyalty system.

VMware Retail Solutions: A simplified and cost saving solution

Facilitate mobile POS and pop-up shops

In today's retail environment, the ability to move quickly and adjust to changes in customer shopping patterns is vital to success. As shopping behavior and volume fluctuate throughout the year due to seasonal variation, sales, and special events, retailers often struggle to provide customers with an optimal shopping experience.

An inability to equip staff to handle customer transactions and provide unique experiences—such as sidewalk sales, curbside commerce, or pop-up shops that extend the shopping experience outside of its traditional location—doesn't just limit how customers are serviced, it can dramatically affect new revenue streams.

By moving workloads to a retail edge platform or into the cloud, retailers can connect devices at will and expand your retail footprint dynamically without retraining staff.

With VMware Retail Solutions, you can also leverage an existing POS system with no retooling or additional software purchases and conveniently run point of sale on a mobile cart, a tablet, or handheld device, such as a mobile phone to service customers.

WITH VMWARE RETAIL SOLUTIONS, RETAILERS CAN TAKE ADVANTAGE OF:

Increased ability to handle customer traffic

Flexibility to resize or reimagine the customer checkout experience

Opportunities to sell outside of traditional store boundaries

VMware Retail Solutions: A simplified and cost saving solution

Support rapid brand expansion while minimizing costs

The scale of retail operations can introduce significant costs to transform locations from one brand to another and limit the pace at which rebranding can occur. Growth through acquisition requires standardization across all retail locations to ensure a consistent customer experience supported by uniform systems. This is often a disruptive process that upsets store operations and introduces frustration for staff, as well as creating a poor experience for customers who are inconvenienced.

With the ability to create a store-in-a-box, the VMware Retail Solutions platform enables retailers to provision and deploy virtualized solutions without requiring physical equipment to be located on-site. Because solutions are deployed through software, there is little to no downtime, and location rebranding—and retraining—costs are minimized.

Rapidly migrate systems to a common platform while reducing deployment costs and on-site disruptions.

VMware Retail Solutions: A simplified and cost saving solution

Confidently secure POS

Cyber-attacks have reached all-time highs and the rate at which vulnerabilities have been found is only accelerating. Unfortunately, retail scale often prevents operating system patching and software updates from occurring at the speed required to adequately protect systems – deploying updates is time consuming and resource intensive. As a result, ensuring that updates are performed on a regular and timely basis can be challenging, and even well-managed systems can exhibit signs of drift and become exposed to vulnerabilities.

POS systems are a favored point of attack for cyber criminals. Driven by significant financial upside, malicious attackers infect systems via malware to gain access to personal data, credit card numbers, and PINs, which are then resold. With the volume of payment information available in retail systems, retail has become the number one target for cyber criminals.

The VMware Retail Solutions platform enables retailers to maintain systems using virtualization and automation. By eliminating the need to update and patch physical hardware systems and on-site software, VMware Retail Solutions helps ensure that systems are always protected against the latest threats.

With VMware Retail Solutions, IT teams can leverage familiar tools to ensure systems are updated and take advantage of the benefits of a truly software defined environment.

25%
of cyberattacks target retailers and result in devastating business impact, including significant fines, penalties, data loss, financial lose, and damage to brand reputation.[1]

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1. Fortinet. "Retail Cybersecurity Statistics Not To Be Ignored."

VMware Retail Solutions: A simplified and cost saving solution

Centralize POS management

Retail scale is massive, with environments that consist of dozens of devices located in thousands of locations across widely dispersed geographic regions. Because locations are often connected with low quality internet connections and staffed by team members that lack IT skills, deploying hardware updates and managing endpoints requires on-site technical resources. This distributed management approach is both costly and time-consuming and can result in inconsistencies across the environment and expose locations to cyber threats.

The VMware Retail Solutions platform reimagines the retail ecosystem as a software defined, centrally managed environment that allows retailers to leverage orchestration and existing analytics tools to manage previously isolated systems. With the ability to manage systems centrally, in real-time, retailers gain remote access to all systems, reduce on-site support requirements and costs, and minimize business risk.

BENEFITS OF CENTRALIZED POS

Reduced time to deploy updates

Reduced on-site support requirements

Reduced business risk

VMware Retail Solutions: A simplified and cost saving solution

Minimize the impact of maintenance

When retailers take stores off-line, they lose revenue and brand loyalty is impacted. It's a fact of business, and yet one that retailers have been challenged to address with a POS model that introduces significant complexity. Retail point of sale solutions consist of much more than just a POS terminal at a customer checkout – the environment also consists of database servers, payment processing, and back-office solutions. Deploying patches and updates to all these systems requires taking critical services offline, which necessitates scheduled downtime that inevitably results in lost revenue and increased risk associated with updates.

VMware Retail Solutions can reduce – or entirely eliminate – the downtime that systems require for periodic maintenance and the introduction of new services. A virtualized environment enables developers to test without impacting the production environment and rollback, if necessary, without impacting on-going operations.

With VMware Retail Solutions, retailers avoid lost revenue with near zero downtime and rollback, and IT teams gain more flexibility in scheduling.

1. Retail Touchpoints. "The True Cost of IT Downtime in Today's Retail Reality, and Ways to Mitigate it." Nick East, September 1, 2021.

$855
Hourly loss per retail store lost due to system downtime[1]

VMware Retail Solutions: A simplified and cost saving solution

VMware Retail Solutions enables thin client devices

Operating systems and retail software require expensive hardware platforms to perform properly. And, as application and operating system requirements evolve over time, they require increased processor power, memory, and storage. That means new investment that drains IT budgets at a time when advancing innovation is more important than ever.

Retailers have had few choices to overcome these challenges, and often overbuy when purchasing POS endpoints to future proof and protect their environment. Even overbuying doesn't prevent lifecycle churn, and, unfortunately, the scale of retail means that overspending on individual nodes becomes significantly more expensive with each dollar spent.

The VMware Retail Solutions platform allows retailers to take a minimalist approach when purchasing POS hardware by consolidating workloads and running them in the cloud or on edge deployed infrastructure. With the VMware Retail Solutions platform retailers can deploy lighter weight and thinner devices that don't require as much power or investment in order to run in a software-defined environment.

BENEFITS OF THIN CLIENT DEVICES WITH VMWARE RETAIL SOLUTIONS PLATFORM

Lowered cost of purchase and replacement of POS hardware

Accelerated IT initiatives through reallocation of budgets

Reduced power consumption by as much as 94%

The scale of retail means that overspending on individual nodes becomes exponentially more expensive with each dollar spent.

VMware Retail Solutions: A simplified and cost saving solution

Meet environmental responsibility mandates

In the past, a rip and replace approach to major software updates was common for retail environments. But with an increased emphasis on environmental responsibility, and the volume of POS terminals that contain plastics, batteries and storage devices that must be properly disposed of, retailers have had to rethink the frequent disposal of the thousands of POS systems in operation. At the same time, storage devices in POS terminals may contain sensitive data, including PII and credit card data, creating greater complexity when disposing of systems that reach end of life.

VMware Retail Solutions is an ideal solution for retailers that want to address the environmental concerns associated with POS solutions and also align with environmental responsibility imperatives. VMware Retail Solutions also allows retailers to extend the life of devices by 30-50% which results in less e-waste going into landfills.

VMWARE RETAIL SOLUTIONS ADVANCES RETAILER ENVIRONMENTAL RESPONSIBILITY WITH:

A by-product of VMware Retail Solutions is reduced e-waste

Reduced energy consumption with lower powered hardware

Extend the life of POS hardware and simplify store management at scale

Today's retail environment requires building resilient operations on a trusted digital foundation. A traditional approach to POS systems no longer positions retailers for success at a time when innovation and digital transformation are driving forces for brand survival.

The VMware Retail Solutions platform can help retailers transform operations, improve the customer experience, and accelerate growth. With proven solutions that simplify the IT stack, leverage current technology investments, and build upon existing team skills, VMware Retail Solutions keeps your business in innovation mode.

- Extend the life of existing POS hardware and/or delay capital spend
- Leverage edge and cloud compute strategies
- Reduce recovery operations time, complexity, and costs
- Enhance POS endpoint security and performance
- Future proof technology and provide additional hardware choices

Discover how VMware Retail Solutions can help lower TCO, maximize ROI, and power retail momentum.

[Learn more >](#)