

Optimize your existing store IT and deliver software defined stores

In an era of new expectations of speed of service, new business demands for increased IT efficiency and ROI, and new models of in-store customer engagement, retailers must cost effectively deliver a superior experience and faster innovations at the retail edge. However, existing store infrastructures aren't designed for flexibility and innovation, or the powerful centralized management required to drive IT efficiency, and tie retailers to expensive, supplier driven upgrade cycles. What's needed is a centrally managed, virtualized store infrastructure that reduces the physical IT footprint in-store and associated management costs, frees retailers to innovate at will, and gives back control of their investment cycles. Zynstra virtualizes back and front office store technology, with intelligent automation to deliver software defined stores. Our unique Intelligent Control Plane delivers new levels of efficiency across a wide range of front and back office solutions within the store.

Virtualized Store Challenges

In-store IT infrastructure, across both back office and front of store, is a critical determining factor when assessing the level of customer service innovation, staff productivity and the IT bill of materials and cost. The right infrastructure can be transformational, providing a platform for increased ROI, innovation and engagement. Conversely, the wrong infrastructure can be a barrier to achieving business strategy, while at the same time being highly costly and inefficient. As the store continues to build on its role as the key customer experience differentiator, forward-looking retailers are moving to an infrastructure that provides the flexible, cost effective platform for innovation that they require. And this needs to be done in a way which avoids big bang changes, optimizes past IT investment, and eliminates vendor-imposed technology life cycle costs.

Complexity and Cost Reduction. Existing store IT was built for a different age, based on device orientated architectures that were perfect at that time. However, as needs have changed and systems have aged, they now require expensive skills and IT inventory to maintain operations. This leads to inefficiency from an ever-growing IT bill of materials and mushrooming support costs. In addition, many existing systems result in a restrictively high cost of change. The costs of deployment of new stores or systems, the upgrading of existing systems, and the testing and deployment of new applications are all excessively high with existing device-based, thick client architectures. And the complexity of such architectures demands high equipment inventory in IT support vans, in storage, and in the supply chain.

Availability, Reliability and Security. Lane down-time is the worst scenario for stores. For thick client solutions, individual, unreliable hard disks account for up 50% of all break/fix callouts and can take up to 2 to 3 days to rectify in large scale retailers. Retailers are now looking at thin client architectures with centralized control of the whole IT estate to remove the inherent unreliability of a device-based architecture across single point of failure devices. When issues do occur, they need to be detected and resolved quickly and effectively, which again requires powerful centralized management.

Security and compliance are paramount. Retailers are looking to move to a more holistic and powerful security architecture than those provided by existing thick client approaches. They want compliance built into, not bolted onto, their store solutions to reduce cost and increase speed of response.

Platform for Innovation. Speed of innovation has become a key competitive differentiator, and consequently building an infrastructure which promotes innovation is key to success. Legacy IT infrastructures have grown over time with no thought towards enabling the innovation and rapid deployment of new applications and services. And as the game changes, retailers find they are having to fight new battles with old technology, not designed for purpose. In-store IT must become a platform for innovation at the core of retailers' investment strategy.

Management at the Core. Virtualization can only deliver increased flexibility, efficiency, reliability and innovation if it is built on a powerful, integrated and centralized management capability, way beyond the management capabilities offered by individual, device-based systems. Virtualization management must provide unprecedented levels of control and facilitate the delivery of software defined stores. What's required is a platform to develop and test new applications centrally, enabling precise control over deployment across all required stores, centralized monitoring across all virtualized workloads to reduce support costs, and coordinated upgrades and updates with minimum business interruption. In an environment where the cost of downtime is critical the key to achieving "zero downtime" is to adopt a centralized management approach to all stores.

Breaking the Operating System/Hardware Dependency Cycle. Device driven store solutions, with each server, terminal, or device running its own hardware, operating system and application are completely dependent on vendor dictated product and support cycles. This can lead to retailers having to replace perfectly functional solutions to enable continued support and compliance, with substantial costs. A pressing example is Microsoft's 2016 change to the lifecycle of the Windows operating system. Essentially this means that, for much of the installed base of POS hardware, there is no Microsoft supported upgrade path to Windows 10. Moving to a virtualized solution avoids these end of life challenges, including the current Microsoft scenario, by decoupling hardware from software and extending their lifecycle, increasing the ROI from past POS investments, and giving retailers choice of the servers, POS terminals and peripherals that work best for them.

Customer and Staff Experience. Customers expect new service levels in-store, to complement the online experience. This requires constant innovation, and the frequent and reliable delivery of new store applications, from the point of sale to the back office. At the same time, the role of the store associate is changing to a provider of support and advice, increasing their value to the business. Store associates represent one of the highest store operation costs and single function devices limit their efficiency and ability to serve.

Key Benefits

With back and front of store applications running on a local, virtualized, secure and resilient thin client infrastructure, the ability to manage, deliver and control new applications is transformed. Zynstra has adapted virtualization for retail, focussing on the massive benefits and cost savings it can deliver.

Return on Investment

- *Central management, testing, deployment and keep current of virtualized applications reduces hardware, software and maintenance costs.*
- *Thin client architecture reduces ongoing hardware replacement costs by up to 30%.*
- *Consolidation of store hardware reduces risk and cost.*
- *Automated centralized testing and deployment reduces application testing costs.*
- *Virtualized applications decouples hardware and software and extends the life of existing systems to avoid end of life costs and enables system standardization.*
- *The Intelligent Control Plane accelerates time to market by enabling the testing and roll-out of new applications across your stores in a single operation, repeatable across the store network.*
- *Leverages past IT investment, moving to virtualization at a moderated pace driven by business needs, with minimized staff training costs.*
- *Virtualized, simpler devices have fewer components, reducing spares inventory across the supply chain.*
For large retailers with hundreds of contractor vans, each with a wide range of IT replacement equipment, the result is a significant cost reduction.
- *Moving to a virtualized thin client architecture reduces power consumption and can enhance retailer green credentials.*

Improved Customer and Store Associate Satisfaction

- *Drives customer innovation through the rapid and controlled testing and deployment of new in-store applications across your store estate.*
- *Enhances store associate satisfaction with reliable and available customer support solutions.*
- *Making devices multi-functional through virtualization saves on hardware and enables the store associate to perform multiple tasks on the same device, including turning an associate facing device into a customer facing device. This enhances staff productivity and satisfaction.*

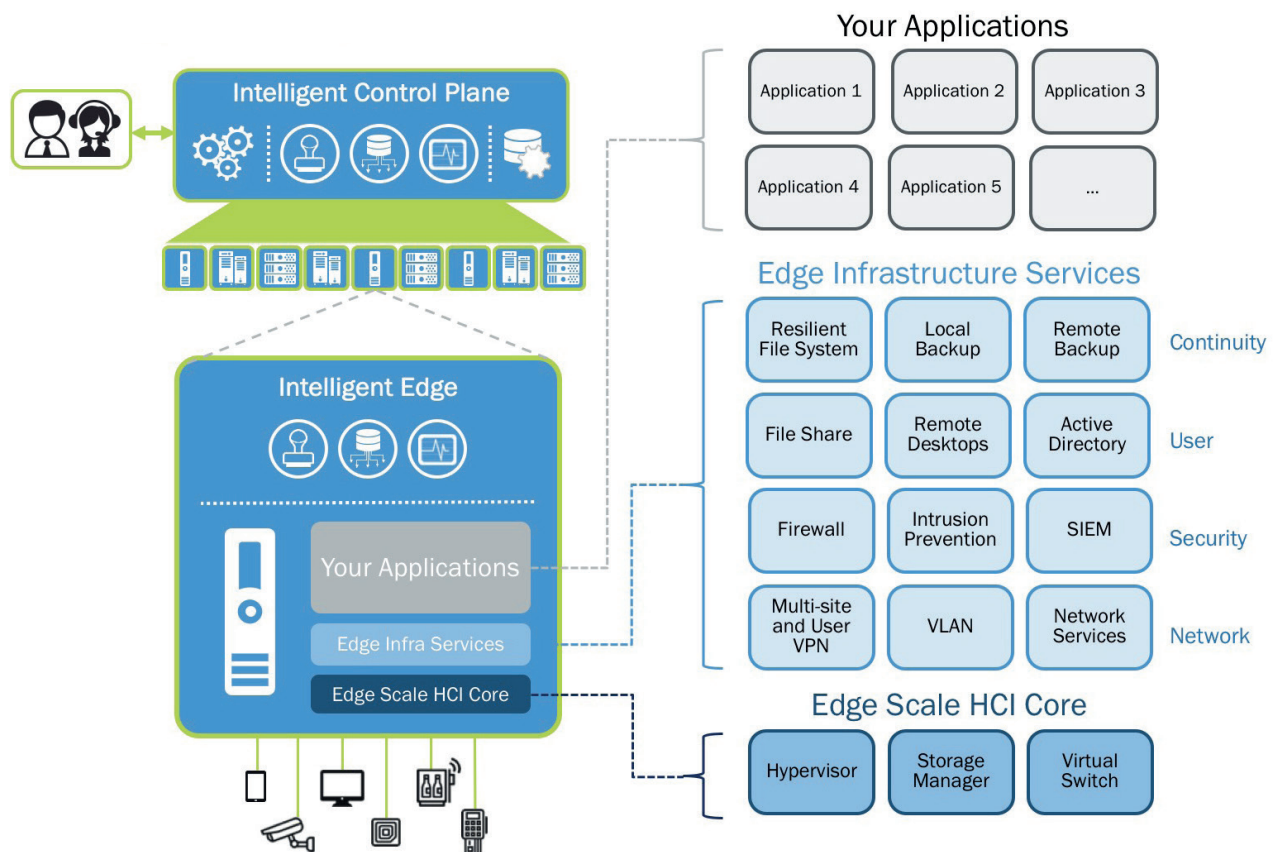
Availability, Reliability and Security

- *Moving to a disk free, virtualized and always up to date solution reduces break-fix call outs by up to 50% and greatly reduces lane down time when issues do occur. Engineers only need be sent to site when equipment breaks.*
- *The High Availability Solution delivers critical systems availability, removing single points of failure and strengthens existing non-resilient processes.*
- *Centralized and controlled updating and upgrading of all virtualized workloads across all stores reduces business interruption towards a goal of "zero downtime".*
- *Highly secure and externally audited solution. Zynstra is a Tier-1 PCI-DSS and GDPR compliant Service Provider, transforming the speed that IT can operate.*
- *By virtualizing server and terminal workloads onto a central server, the reliability soft spot of disparate old hard drives is greatly reduced. We remove the security risk of multiple front of store processing devices and replace them with virtualized edge servers that have more extensive physical and technological security features.*
- *Zynstra's unique automated Keep Current capability reduces down-time and site upgrade costs.*

Zynstra Virtualized Store

Zynstra virtualizes back and front office store technology, with intelligent automation to deliver software defined stores. At the core of our solution is the Intelligent Control Plane, which enables the provisioning, management, control and updating of hundreds or thousands of servers and workloads across a distributed estate. It simplifies and accelerates what would otherwise be complex IT tasks, while ensuring a consistent, secure IT environment in every store.

Our technology enables a controlled migration to a virtualized, thin client environment at a moderated pace dictated by the business, allowing retailers to choose which server, terminal, or workloads they need to move to a virtualized environment. And for store associates, the change is often invisible, avoiding expensive staff training costs



Zynstra Virtualized Store Application Examples

Zynstra software optimizes existing store technology and provides a solution that supports any server workload, any POS vendors, on any Operating System, enabling retailers to migrate their existing environment on to a new virtualized platform as their business dictates, with complete management and control. Our virtualized store solution can be deployed across a wide range of front and back office solutions across multiple retail sectors. Examples of these include Mobile POS tablets, Self-service Terminals and Multi-function Delivery Management Terminals in the Convenience and Quick Service Restaurant sectors; Self-checkout terminals and Consolidation of multiple systems at the Information Kiosk, such as POS, customer ordering and click and collect applications for Supermarkets; and Specialist Applications including magic mirror for Fashion Retailers, framing for Interior Design and RFID tracking for many retailers.

Zynstra Software

Zynstra offers a complete software suite (See Zynstra Retail Edge Software Suite) that comprises of three integrated components: Intelligent Edge software, as a platform for reduced cost to serve in store, Intelligent Control Plane for management, control and innovation, and the Intelligent Edge Client that provides secure connectivity for users and peripherals to virtualized applications be they Point Of Sale, customer-facing or back-office workloads. It reduces the in-store IT bill of materials and operating costs significantly, while delivering a platform for continuous innovation. All of this is provided with PCI-DSS conformance built in.

About Zynstra

Zynstra enables retailers to deliver superior customer and employee experiences through faster innovation and radically reduces cost to serve in-store. Purpose built for the edge, our powerful software optimizes existing store technology and enables digital transformation.

Zynstra virtualizes back and front office store technology, with intelligent automation to deliver software defined stores. Specific virtualization solutions include Store, POS, mobile POS Tablet, Kiosk, Self-Checkout and Enhanced PCI-DSS Compliance.

Zynstra delivers its patented retail edge software for the world's largest, most distributed, innovation-driven enterprises. With Tier 1 PCI-DSS compliance Zynstra is committed to security excellence at the edge.

Zynstra is backed by Octopus Ventures, one of Europe's leading investors in fast-growth companies, focused on backing unusually talented entrepreneurs.

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