

SUNLIGHT

Simplifying **Connected Retail** With Sunlight

The digitization of stores

Retail was always digitizing fast – and now post COVID, that process has only sped up as retail stores reinvent themselves. Retailers need to be able to deliver a variety of in-store applications – from the traditional POS, to traffic analytics to experiential services like smart mirrors and smart signage driven by hyper-personalization. New autonomous store capabilities – bypassing the checkout altogether – will change the way people convenience shop.

What if you could deploy and manage all your in-store applications on a single power and space efficient hyperconverged cluster, that was resilient, centrally manageable and didn't cost the earth?

<\$5,000 per site

Single node starting price

10 minutes

Time to deploy a Sunlight edge node

Zero

IT skills needed on-site at an edge location

Focusing on the customer experience

Retail transformation has a common requirement – the ability to process and respond to large amounts of locally generated data in real-time to deliver the best possible experience to the shopper and at low cost.

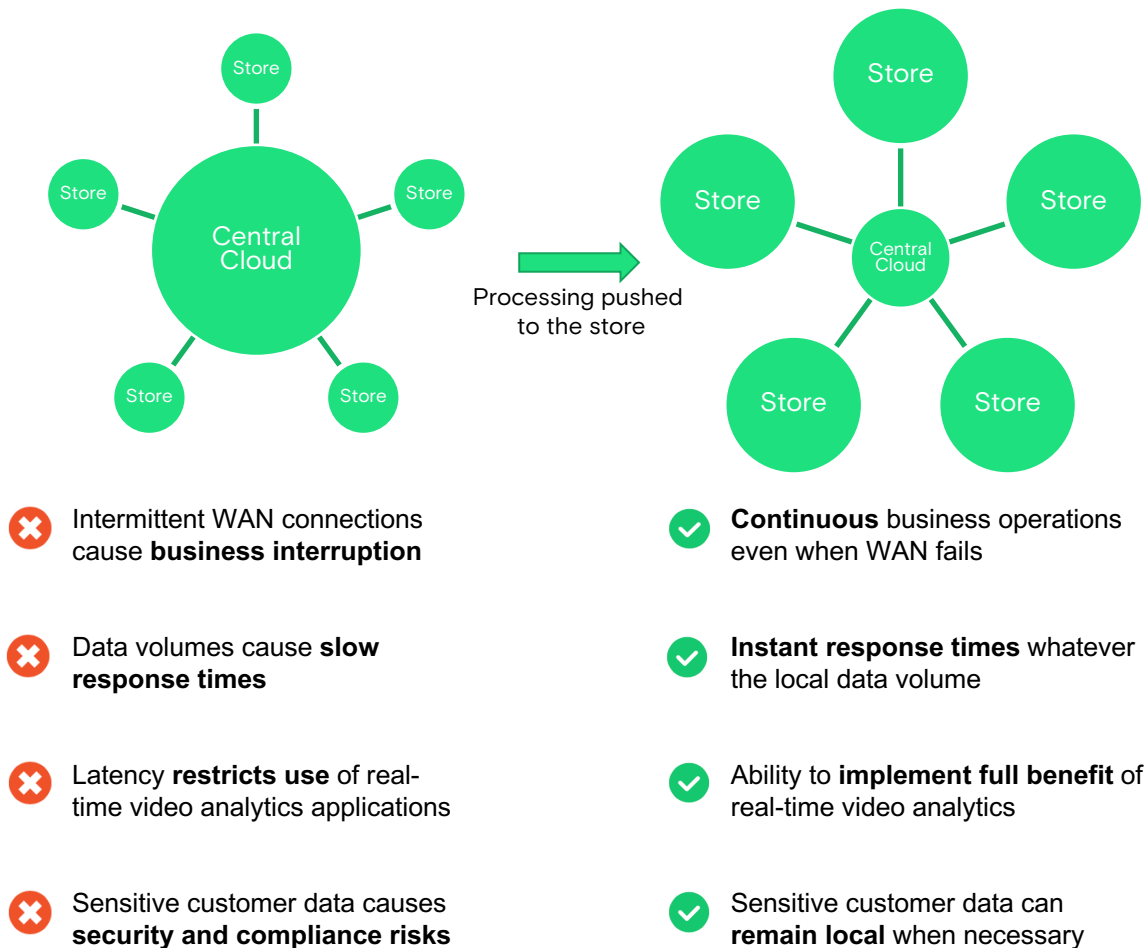
However running these applications in the cloud is a problem. As a store becomes more dependent upon an increasing number of data-hungry digital services, intermittent wide-area connectivity, latency and data bottlenecks result in anything from poor customer experience all the way through to complete shut down in operations – and corresponding lost revenue.

A new type of infrastructure

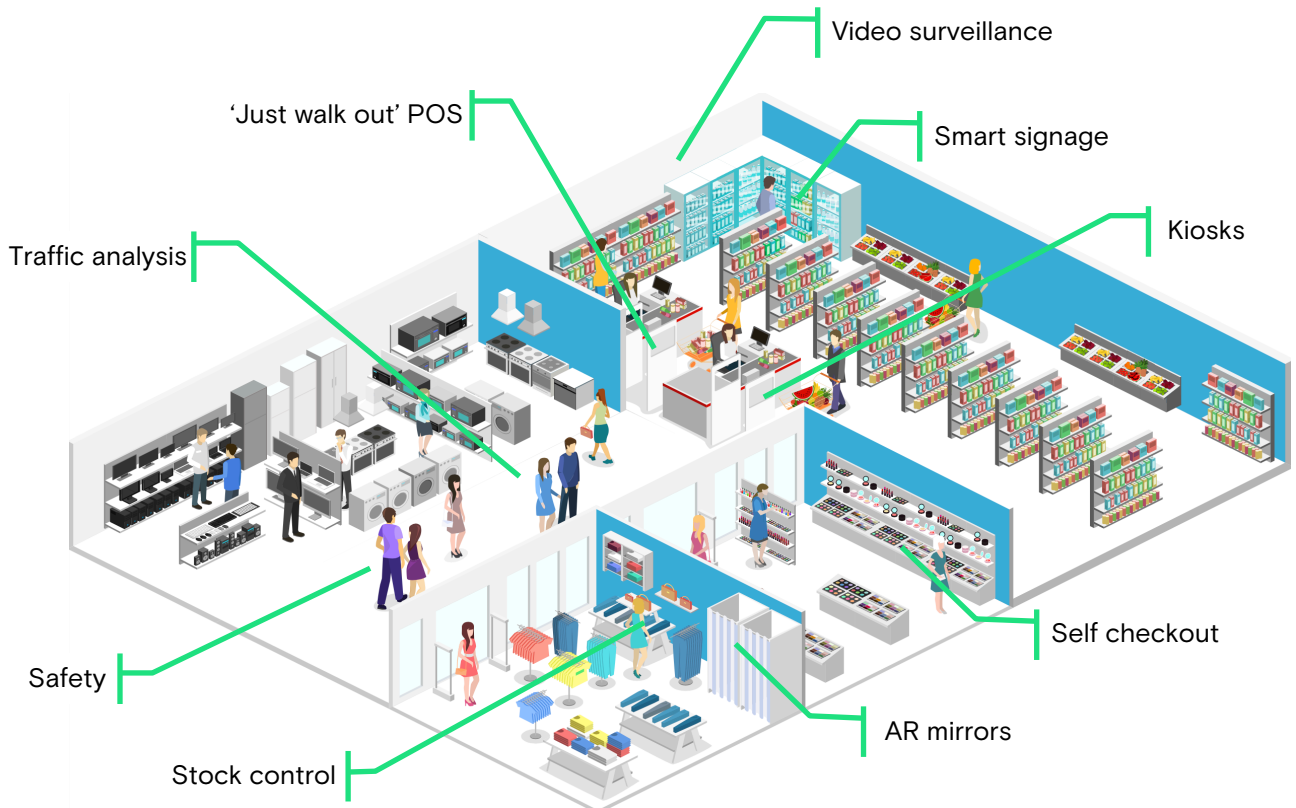
Retailers are responding to these challenges by moving processing of data to the ‘edge’ – or more specifically into the retail store itself, so that data can be processed in-situ. This approach allows applications to process large volumes of data and respond in real-time, delivering a high-quality, consistent level of service to shoppers.

This in-store ‘microdatacenter’ is a far cry from the bulky, power-hungry and expensive centralized enterprise datacenter. There’s limited space, power and IT skills, and potentially 100s or 1000s of locations. Existing datacenter hardware and infrastructure software simply isn’t usable or affordable.

Pure Centralized Cloud Models Don’t Work for Connected Retail



Smart Retail Needs Smarter Infrastructure



What does the perfect in-store infrastructure look like?

The perfect in-store infrastructure needs to be able to:

- **Support a mix of applications** - some legacy, some bleeding edge
- **Enable continuous operations** - with high availability, data protection and disconnected running
- **Be centrally manageable** - so problems can be fixed quickly without requiring a truck roll
- **Fit anywhere** - locations have limited space, power and cooling - so the solution needs to be small, rugged and work in a broom closet if need be

- **Be deploy-and-forget** - be easy to on-board new devices and not require special skillsets on-site to keep things moving

Don't forget the cloud

Of course - traditional cloud infrastructure - be it AWS or your own datacenter - still has an important place in all this. You need the ability to run a single, consistent platform edge-to-cloud to reduce management pain, keep skillset requirements low, and make application development simpler.

The new Edge economics

With 100s or 1000s of sites to deploy - cost becomes a major consideration, especially if it's capex. The edge needs a new licensing model that suits edge infrastructure and ideally with flexible subscription pricing.

Sunlight makes the Edge simple

Sunlight provides a complete software-defined edge infrastructure platform that makes deploying and managing edge applications easy. It enables you to run all your VM-based and cloud-native applications on a common hyperconverged platform with full high-availability and isolation.

It's simple – all-in-one compute, storage and networking, and centralised application deployment and management. No more having to licence and integrate separate virtualization, software defined storage and management tools.

It supports all your applications – virtualized or cloud-native – and runs them all fully isolated on the same cluster for maximum density and efficiency.

It has a tiny footprint – leaving system resources to do what they're there for – running your applications.

It's low cost and with subscription-based pricing – so you can keep your per-store costs low.



The increased efficiency of the Sunlight HCI stack not only reduces hardware costs, it also reduces power, space, and cooling requirements. This is especially valuable for data-intensive workloads that are being deployed at the edge of the network (e.g., IoT sensors) where space and power are often in short supply.

Alex Arcilla
Senior Validation Analyst
Enterprise Strategy Group



Sunlight's Approach to Edge Infrastructure



All Clusters managed from a single platform, hosted in cloud or On-Prem



Small footprint, power efficient



Zero-touch Edge device onboarding



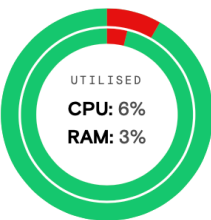
Single API for integration with Infrastructure as Code toolsets



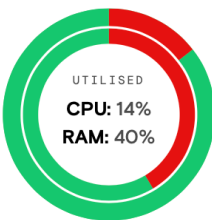
Support for Virtual Machines, Containers and Kubernetes distributions



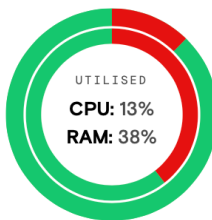
Support for GPUs for AI, vision and Machine Learning use cases



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vmware



NUTANIX

Example High Availability Sunlight edge cluster

- 2 node Lenovo ThinkSystem SE350
- 500GB+ memory, 60 HT cores free for applications
- Back-to-back networking – no switch required
- 2M IOPS+ storage performance
- Air interface uplink



High availability with only 2 nodes

Deploy-and-forget with full centralized management

Minimum complexity

The lowest cost way to deploy applications at the edge. Period.

Sunlight Converged Infrastructure Platform

Sunlight is the fastest converged infrastructure platform for commodity hardware consisting of:



Sunlight NexVisor

Built from the ground-up to support today's high performance hardware, and with a tiny footprint



Sunlight SDS

Distributed Software Defined Storage for easy scaling and low latency



Sunlight SDN

Software Defined Networking enabling creation of ethernet-based virtual private networks



Sunlight Dashboard

The easy to use Sunlight Dashboard and API to configure, monitor and manage your virtual datacenter



Sunlight Infrastructure Manager

Enabling centralised management and seamless movement of your services across the cloud, on-premises and the Edge



Sunlight Marketplace

Automated, API driven deployment of VMs, Containers and Applications based on Ansible

How to get your in-store applications onto Sunlight

Choose your edge applications in the Sunlight Marketplace
(or build your own deployment recipes)



Decide resilience and performance policies



Choose your edge hardware with 'Sunlight Inside'



Automatically deploy across 100's of locations



Centrally monitor and manage

Get a free trial now
sunlight.io/free-trial

Deployment

Sunlight can be deployed anywhere – on premises, in the cloud and at the Edge with single pane-of-glass manageability of the entire hybrid infrastructure. Sunlight is the only complete HCI stack that can be deployed on anything from regular data center servers to constrained far-Edge compute devices running on factory floors or harsh environments. Unlike other HCI stacks, Sunlight is fast to deploy – taking around 10 minutes to install on a server, or deployable on-demand in AWS.



On-premises

Run on commodity data center servers with your choice of NVMe storage

Cloud

Run in AWS with full integration with AWS networking

Edge

Run on low-power CPUs such as Intel Xeon-D, Atom and ARM

Workloads



sales@sunlight.io



www.sunlight.io



Castle Park, Cambridge, United Kingdom

SUNLIGHT

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Sunlight makes performance possible anywhere – from the cloud to the edge. Demanding applications like AI, Big Data, Analytics and Rendering run 3x faster on Sunlight compared to legacy virtualisation, and because Sunlight has a tiny footprint – it's perfect for the edge.

Enterprises and MSPs use Sunlight to cut the costs of delivering high performance IT by 70%. Sunlight is a complete HCI stack that can be deployed on-premises, in AWS, and on resource-constrained far-edge devices.

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