Powering the Retail Edge
Datasheet

Zynstra is specifically designed and built for the retail edge. While traditional approaches attempt to stretch datacenter equipment to fit to the edge, Zynstra leverages intelligent automation to transform the way thousands of distributed sites are managed, and establish a lasting platform where new innovative applications and services are tested and launched to delight consumers at the retail edge, all while driving down operational costs and better managing risk.

How it Works

Zynstra's solution for the retail edge comprizes of two integrated components:

The **Intelligent Control Plane** enables the provisioning, management, control and updating of hundreds or thousands of servers and server workloads across your complete retail estate. It simplifies and accelerates what would otherwise be complex IT tasks, while ensuring a consistent, secure IT environment in every store.

The Intelligent Control Plane makes sure that everything is running smoothly, and if you roll out a new site, it is delivered as it is supposed to be. It makes sure that all patches and updates are automatically applied and is continuously tested to ensure everything is running correctly.

Components of the Intelligent Control Plane include:

- **Command Center.** *A cloud based interface for monitoring and management of all your Intelligent Edge servers.*
- **Automation Manager**. *Governs new site provisioning, patching, updating, backup and numerous other processes.*
- **Configuration Manager.** *The centralized database of edge server configuration and state, across all retail sites.*

The Intelligent Edge is a virtualized server located in your retail store or branch. It's an edge-scale, hyperconverged core, comprizing of tightly integrated compute, storage, networking, and infrastructure services. It provides a virtualized platform for in-store applications and provides infrastructure services such as file management, firewall, user management, secure networking and system back-up.

The Intelligent Edge server is available in a number of hardware configurations, each right-sized for the retail environment. Available in small form factor servers, and deployable in single or dual-node configurations, Zynstra's Intelligent Edge improves on cost, space and environmental needs, compared with traditional datacenter-based hyperconverged technology.

The combination of an Intelligent Control Plane and Intelligent Edge replaces the need for multiple server and storage devices on-site while ensuring the full lifecycle of the server and its application can be managed through a single Cloud-based service.

Components of the Intelligent Edge include:

- **Edge Scale HCI Core.** *Edge scale hyperconverged infrastructure delivers virtualized compute resources, networking and simplified storage provisioning.*
- **Edge Infrastructure Services.** *An array of essential IT infrastructure services, deployed as part of the automated new site provisioning process.*
- **Your Applications.** *Secure, high-performance virtual machine hosts for in-store applications.*

Please refer to Zynstra's Solution Brief for the retail edge for more detail about the components and benefits of the Intelligent Control Plane and Intelligent Edge.

Feature List

All Zynstra solutions include the Intelligent Control Plane, one or more Intelligent Edge servers and access to the Command Centre.

Optional add-on products provide additional features or third-party software licenses.

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Standard Features

Cloud Managed

- **Command Centre.** *Monitoring, management and automation for IT teams or your IT partner. Manage all your Zynstra edge servers from the Cloud, and rapidly provision new sites using the Command Center's Commissioning Console. Access detailed event and diagnostic information from the Command Center's Monitoring Console.*

- **Local Dashboard.** *The Command Centre's User Control Console provides easy to understand per-appliance service status monitoring, intended for local super-users or office administrators.*

- **Worry-free IT.** *The Zynstra Support Team provides assistance for the lifecycle of the solution including configuration, pro-active server monitoring and general support backed by SLA.*

Keep Current

- **Keep Current.** *Edge Server HCI Core, Infrastructure Services, and curated applications provided by Zynstra are regularly patched and updated.*

- **Keep Secure.** *Zynstra's control plane and servers are secure, monitored and automatically able to identify both internal and external security threats.*

- **Keep Running.** *Self-healing architecture and on-going performance monitoring and tuning by the Zynstra Support Team.*

User Services

- **File Share.** *Individual file storage and group file shares on resilient high-performance disk arrays.*

- **Active Directory.** *Industry-leading user credential management included and installed on-server.*

Application Hosting

- **Virtual Machines.** *Compute capacity to host your applications. Allocate CPUs, RAM and storage to virtual machines for local applications that benefit from the security and reliability of the edge server HCI Core.*

- **High Performance.** *Edge servers include a solid-state disk (SSD) cache and multiple hard disks. The user file system, applications running in VMs, and all other components of the server benefit from improved read/write performance.*

Network Services

- **DNS and DHCP.** *Critical network services on-premises.*

- **Firewall.** *ICSA certified firewall gateway to the Internet protects LAN-side applications, data and users.*

- **VLAN.** *Virtual switch supports secure LAN configurations allowing segregation of shop floor, back office and guest networks.*

- **VPN.** *Secure remote access to services for users and IT administrators.*

- **IPsec.** *Securely connects multiple sites using IPsec over the public Internet.*

Reliable & Resilient

- **Resilient Storage.** *Edge servers feature redundant disk arrays to ensure that, if a hard disk fails, your server continues to work and your data remains available.*

- **Local Backup.** *All data, including your application virtual machines' data, are backed up locally on the server reducing the risk of files becoming lost or corrupted.*

- **High Availability.** *Combine two servers for dual-node clustering with automated failover.*

Server Hardware

- **Edge Scale.** *A choice of server platforms and enterprise-class components, including break/fix service.*

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Support

- **Support.** *You and your IT partners are backed by Zynstra's team and modern IT support systems.*

- **Service Level Agreement.** *99.5% service availability and 24 hour support for critical issues.*

- **System Care.** *Next business day repair of appliance hardware from HPE (subject to regional availability).*

Gateway Product Features

Add a modern next-generation firewall, running on the edge server. This add-on upgrades the basic firewall that is included with the standard product by adding additional control, filtering and protection capabilities that make use of signatures and databases from leading commercial security providers.

- **Firewall.** *ICSA certified firewall gateway to the Internet protects LAN-side applications, data and users.*

- **Web Filter.** *Enables blocking of inappropriate web content in real-time. The URL categorization engine makes it easy to block websites in over 140 categories.*

- **Bandwidth Control.** *Control and visualization of network traffic at a fine-grained level.*

- **Virus-Blocker.** *On-the-wire anti-virus scanning automatically scans HTTP, FTP and SMTP traffic.*

Enhanced PCI-DSS Compliance Product Features

- *Optional offering that delivers PCI-DSS certified compliant features and support services, with enhanced security policies and additional support processes, backed by a PCI-DSS Matrix of Responsibility (MoR) and Attestation of Compliance (AoC).*

- *Zynstra security and Keep Current features can be used to deploy and keep up to date compliant solutions.*

- *Next-generation firewall option and internet gateway software deployed on each server to meet requirements for resisting penetration scanning.*

- *Consistency of server, security and software architecture across all retail stores, reducing compliance auditing effort and complexity.*

Cloud Backup and Disaster Recovery Product Features

While the configuration of every server is held in the Intelligent Control Plane, if user and application data off-site backup is required, this add-on delivers a secure and reliable solution.

- **Cloud Backup.** *Nightly backup of the entire system to the cloud, with data being securely encrypted on the server, in transit and in the cloud.*

- **Disaster Recovery.** *Temporary access to users' data and applications in the cloud in the event of a major outage, followed by data restoration to your replacement hardware.*

- **Simple Pricing.** *The Cloud Backup and Disaster Recovery option is inclusive of cloud storage, recovery and support costs, for a predictable subscription price.*

Windows Server Product Features

By including Windows Server licenses with your Zynstra subscription, you are correctly licensed for the lifetime of the solution. Zynstra's Windows Server images are also easy to deploy, being prepackaged and configured ready for provisioning using the Command Center when specifying the host VM.

- **Single Instance for VMs.** *Windows Server Standard Edition is supplied as a subscription price for deployment in a Zynstra virtual machine, running on a single-node or dual-node server.*

- **Multiple Instances for VMs.** *Unlimited Windows Server Standard Edition VMs for deployment in to a Zynstra virtual machine, running on one single-node or dual-node server.*

Microsoft Remote Desktop Services Product Features

Deliver desktop or client applications to your users with Microsoft RDS. By including Microsoft RDS licenses with your Zynstra subscription, you are correctly licensed for the lifetime of the solution.

- **Remote Desktop Services.** *An RDS broker will be installed as part of the server provisioning process. Desktops or client applications can be deployed in a custom VM on the server by your IT team or IT partner.*

- **Support.** *The RDS broker is fully monitored and kept-current by Zynstra. Desktop or application configuration and updates are managed by your IT team or IT partner.*

- *Note – Two or more Windows Server licenses must also be purchased to host RDS services: One to support the RDS broker and at least one to support the served payload.*

Hardware Product Features

	Z1610	Z1620	Z1630	Z1640
Max Storage (Disks/Capacity*)	4 / 16TB	8 / 32TB	8 / 32TB	12 / 48TB
CPU (Cores/Threads)	4 / 4	4 / 8	8 / 16	12 / 24
RAM (Base/Max)	32GB / 64GB	32GB / 64GB	64GB / 128GB	64GB / 192GB
Network Interface	1Gb	1Gb	1Gb	1Gb
HPE ProLiant Server	ML30 Gen9	ML110 Gen9	DL180 Gen9	DL380 Gen9
Form Factor	Tower	Tower	2U Rack	2U Rack
Dimensions (Approx.)	37x18x48cm	44x20x48cm	8.8x44.5x61cm	8.8x44.5x73cm
Acoustic Noise (Approx.)	23 dBA	25 dBA	40 dBA	39 dBA

*Maximum Storage Capacity is useable capacity after disk mirroring. Storage capacity is allocated to core IT systems, local backup, temporary space and system work space, resulting in the storage available for allocation to the User File System and applications will be lower than the Maximum Storage value.

Hardware Options

Each Zynstra edge server can be specified with RAM and disk capacity to meet the requirements of a wide variety of retail payloads.

- **Storage Capacity.** *Servers have flexible disk options for a variety of storage use cases. A Disk Pack comprises two disks of the same size, mirrored for resiliency. Disk Packs are available as pairs of 1, 2, 3, 4, 6 or 8TB disks.*

- **VM Memory Capacity.** *Servers include a base RAM configuration, which can be upgraded to accommodate memory intensive Virtual Machines. RAM Packs are available in 16GB increments for the Z1620, and 32GB increments for Z1630 and Z1640 appliances.*

About Zynstra

Zynstra is transforming edge computing for retailers. Its Intelligent Infrastructure is purpose built for the edge, delivering high reliability and managing risk in every store. With Zynstra, powerful automation capabilities centrally manage thousands of distributed sites at a fraction of the cost and enable retailers to launch new store services faster. As a result of a close working relationship and global agreement with Hewlett Packard Enterprise (HPE), Zynstra's virtualization and cloud management software is packaged by HPE as a key part of its new ProLiant Easy Connect portfolio.

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