

**Zynstra enables the virtualization of retail back office and front office IT resources, and offers specific virtualization solutions for point of sale (POS), portable POS Tablet, and Self-Checkout.**

**The Zynstra solution combines on premise, Cloud functionality, and support services:**

- *Deployed in-store, Zynstra **Intelligent Edge** provides core IT services and virtual machine resources for hosting virtualized POS and custom applications. It comprises an edge-scale, hyperconverged core with tightly integrated compute, storage, and networking.*
- *Zynstra **Virtualized Point of Sale** software allows multiple terminals, self-checkouts and tablets to run on the Zynstra Intelligent Edge while securely connecting over the local network to peripherals like touchscreens, cash drawers and scanners.*
- *The Zynstra **Intelligent Control Plane** enables the provisioning, management, control and updating of hundreds or thousands of virtualized edge 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 **Zynstra Support Team** provides support and maintenance, plus the option of enhanced services for on-going monitoring, patching and updating of the Zynstra solution.*
- *Installed on your choice of hardware, Zynstra's architecture is designed for the edge delivering significantly lower store IT hardware costs than data center virtualization solutions.*

## Features

All Zynstra implementations use core product features to deliver distributed, secure and managed virtualization. Additional products and solution options, built on this core capability, are available to meet incremental customer needs.

Optional add-on products provide additional features or third-party software licenses. These are listed separately in this section.

Unless otherwise set forth on an order, the Zynstra Software for the Retail Edge and related services do not include any POS terminals or other hardware, which are the sole responsibility of the customer.

## Core Product Features

Zynstra Intelligent Edge provides Zynstra's core hyper-converged technology and IT services for a single server, with the right to use the Zynstra Intelligent Control Plane to manage each server.

### Cloud Managed

- **Command Centre.** *Monitoring, management and automation. Manage all your virtualized 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-server service status monitoring, intended for local super-users or office administrators.*

### Keep Current

- **Keep Current.** *Intelligent Edge 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, performance monitoring and tuning.*

## Application Hosting

- **Virtual Machines.** Compute capacity to host your applications. Allocate CPUs, RAM and storage to virtual machines for virtualized POS and local applications that benefit from the security and reliability of the Intelligent Edge HCI Core.
- **High Performance.** Intelligent Edge servers support both RAM and SSD caches, in addition to 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.
- **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.

## User Services

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

## Reliable & Resilient

- **Resilient Storage.** Support for 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.

## Hardware Platforms

- **Edge Scale.** Designed for low cost servers, scaled for the edge, not the datacenter. Zynstra file system and software architecture remove the need for high-end server components and require fewer servers to achieve high-availability.

## Zynstra Virtualized POS Products

Zynstra's POS Virtualization solution virtualizes the combination of POS application software and operating system on a standard server. A Linux operating system is run on the existing POS terminal, whether that is a traditional sales till/register, tablet, or self-checkout.

Zynstra's solution connects the POS terminal and all of its peripherals to the virtualized version of the software running on the virtualized edge server.

Users continue to interact through the screen of the original POS Terminal, presenting the POS application exactly as it appears and operates today.

The solution allows existing peripherals such as printers, cash drawers, magnetic stripe readers, barcode scanners, check readers and ancillary displays to continue to operate without the need for replacement or upgrade.

### Virtual POS Client

Zynstra Virtual POS Client provides virtualization of a single traditional POS till/register allowing the POS software to run on a virtualized edge server, interfacing with the POS terminal's peripherals over a secure network connection.

### The product includes:

- **Zynstra POS Client User Interface.** The component that allows the POS software's UI to be shared across the network to the terminal touch-screen.
- **Zynstra POS Client Device Connectors.** Drivers that connect the terminal's physical peripherals to make them available across the network to the VM hosting the POS software.
- **Zynstra POS Client Operating System.** The unique thin-Linux operating system created by Zynstra to run on the terminal.
- **Zynstra POS Virtual Connectors.** Drivers installed inside the VM running on a virtualized edge server hosting the POS software, which connect the VM to the terminal's peripherals.

## Virtual Tablet Client

Zynstra Virtual Tablet Client provides virtualization of a single traditional POS till/register on a tablet device, allowing the POS software to run on a virtualized edge server and the terminal's user interface on the tablet.

### The product includes:

- **Zynstra POS Tablet Client User Interface.** The component that allows the POS software's UI to be shared across the network to the tablet.
- **Zynstra POS Tablet Client Device Connectors.** Drivers that connect the tablet's physical peripherals to make them available across the network to the VM hosting the POS software.
- **Zynstra POS Tablet Client Operating System.** The unique thin-Linux operating system created by Zynstra to run on the tablet.
- **Zynstra POS Virtual Connectors.** Drivers installed inside the VM running on a virtualized edge server hosting the POS software, which connect the VM to the tablet's peripherals.

## Virtual Self-Checkout (SCO) Client

Zynstra Virtual Self-Checkout Client provides virtualization of a single SCO terminal allowing SCO software to run on a virtualized edge server, interfacing with the SCO terminal's peripherals over a secure network connection.

### The product includes:

- **Zynstra Self-Checkout Client User Interface.** The component that allows the SCO software's UI to be shared across the network to the terminal touch-screen.
- **Zynstra Self-Checkout Client Device Connectors.** Drivers that connect the terminal's physical peripherals to make them available across the network to the VM hosting the SCO software.
- **Zynstra Self-Checkout Client Operating System.** The unique thin-Linux operating system created by Zynstra to run on the terminal.
- **Zynstra Self-Checkout Virtual Connectors.** Drivers installed inside the VM running on a virtualized edge server hosting the SCO software, that connects the VM to the terminal's peripherals.

## Additional Product Options

### High Availability

Zynstra High Availability delivers server clustering technology allowing a second server to be added to a Zynstra Intelligent Edge for deploying a dual-node, resilient system.

- **Dual-node Cluster.** Two virtualized edge servers working together to remove single points of hardware failure, increasing up-time and resiliency.
- **Data Replication.** Data is automatically replicated between each node, making it available during a fail-over event while also increasing overall data resiliency.
- **Active-Active Load Balancing.** In normal conditions, VMs benefit from the compute resources of both nodes in the cluster. In the event of node failure, affected VMs are started-up automatically on the remaining node.

### Enhanced PCI-DSS Compliance

An independently audited solution delivers PCI-DSS 3.2 compliant IT, as defined by a Matrix of Responsibility (MoR) and Attestation of Compliance (AoC).

- **PCI-DSS Compliant Service Provider.** Zynstra operates as a PCI-DSS Tier 1 Service Provider.
- **Auditing.** Heightened security event and log auditing by the Zynstra Support Team.
- **Secure.** Hardened security features enabled in the Intelligent Control Plane and on Intelligent Edge Servers.
- **Policy.** Enforcement of compliant intrusion prevention measures such as password policy, failed-logon blocking, and port blocking.

## Integrated Backup

With Integrated Backup, you benefit from an automated local backup capability and the ability to send encrypted backups to off-server storage. This off-server storage could be your own AWS or Azure capacity, or Zynstra-managed storage (bought separately as part of the Managed Backup option).

- **Backup Profiles.** Automatic creation of VM snapshot backups and file share backups, at a frequency and schedule to meet business continuity objectives.
- **Cloud Backup.** Securely move backup files to your AWS or Azure cloud storage, with data being encrypted on the server, in transit and in the cloud.
- **Retention Policy.** Flexible retention policies for short or long-term storage of backup files in the cloud. Zynstra makes use of Azure and AWS 'infrequent access' and 'cold' storage tiers to minimize costs.

## Managed Cloud Backup and Disaster Recovery

In addition to the Integrated Backup function, Managed Cloud Backup and Disaster Recovery adds Zynstra-managed cloud storage and disaster recovery services, for a predictable subscription price.

- **Managed Cloud Storage.** Cloud storage is used to store encrypted backup files from Zynstra Integrated Backup. The cloud storage is managed and monitored by Zynstra and supplied by a major cloud service provider in your region.
- **Disaster Recovery.** Zynstra Support provides an SLA-assured response to a major server outage, assisting in the restoration of data to a repaired or replacement server.
- **Simple Pricing.** Managed Cloud Backup and Disaster Recovery is provided for a subscription price per server, inclusive of cloud storage, recovery and support costs.

## ICP Hosting

Every Zynstra Intelligent Edge is monitored and managed by a Zynstra Intelligent Control Plane (ICP). The ICP Hosting product offers cloud compute resources to host the ICP software, fully installed, managed and monitored by Zynstra.

- **Pre-configured ICP.** Zynstra ICP deployed in the cloud and ready to use without the need to procure and configure your own data center resources.
- **Keep Current.** The ICP is kept current with regular updates installed by Zynstra.
- **Monitored.** The ICP software and cloud resources are monitored by Zynstra, helping reduce downtime while minimizing your IT overhead to maintain the system.

## Curated Application Product Options

Curated Applications are available for a number of core IT services that are often required locally in retail and ROBO environments. These are deployed from Zynstra VM images as part of the server commissioning process, kept current as part of the regular Zynstra maintenance process, and monitored from the cloud.

Choosing a Curated Application reduces installation time, simplifies configuration, and ensures the applications are kept secure thanks to regular updates.

### Microsoft Active Directory

A curated version of Microsoft Active Directory, providing local domain controller services.

Windows Server licenses to host the curated application must be purchased separately.

### Microsoft Remote Desktop Services

Deliver desktop or client applications to end-users with Microsoft RDS.

Two or more Windows Server licenses must be provided to host RDS services: One to support the RDS broker and at least one to support the desktop or application payloads.

## Support and Maintenance

Zynstra offers a range of support and maintenance contracts to ensure a reliable, up-to-date solution while also helping customers reduce the cost and effort to maintain their in-store IT. You and your IT partners are backed by Zynstra's team and modern IT support systems.

Please refer to Zynstra's published SLA document for full details about support hours, response and resolution times.

## Standard Support and Maintenance

Standard Support and Maintenance provides the basic level of support required for deployment of Zynstra in to a production environment.

- **24x7 Support.** Phone and email support 24 hours a day for the highest priority (P1) issues affecting your Zynstra solution.
- **Standard Support Service SLAs.** Published SLA for target response and resolution times.
- **Access to Updates.** The right to software updates for licensed Zynstra software.

## Gold Support and Maintenance

Gold Support and Maintenance provides all the benefits of Standard Support and Maintenance, with the addition of managed services - Zynstra proactively monitors and manages your virtualized edge servers on your behalf. This reduces your IT effort required to look after your server inventory, allowing you to focus on the hosted business applications and users.

- **Managed.** The Zynstra Support Team provides assistance for the lifecycle of the solution including configuration, patching, update roll-out and general support.
- **Monitored.** Proactive monitoring of the Zynstra platform and curated applications, identifying performance, reliability and security issues.

## Platinum Support and Maintenance

Premium Support and Maintenance provides all the benefits of both Gold and Standard Support and Maintenance, with priority response times and other Premium SLA targets.

- **Extended 24x7 Support.** Phone and email support 24 hours a day extends to more issue priorities (P1 and P2) affecting your Zynstra solution.
- **Priority Response.** Response and resolution targets for high priority issues are at least twice as fast as Zynstra's Standard SLA.

## Zynstra Intelligent Edge Server Hardware Requirements

The following hardware options are recommended minimum requirements for most common Zynstra deployments. In many cases Zynstra is able to verify the solution on the customer's own choice of server vendor and hardware components.

Zynstra is uniquely designed for edge-scale solutions found in retail branches and ROBO. Both single-server and dual-server clusters provide resilient storage and compute using commodity server or desktop hardware. Zynstra software-based disk volume manager, and optional SSD cache, provides high-performance storage without the need for expensive hardware disk controllers or high-end SAS drives.

- **Server Type.** Micro-server, tower or rack-mount.
- **CPU.** Intel Core or Xeon CPU, 4 Cores, 1.8 Ghz base frequency (Turbo Boost recommended)
- **Memory.** 24GB DDR4 RAM.
- **Storage.** SATA hard disks, in one or more mirrored pairs.
- **Read/Write Cache.** Optional M.2 or SATA 120GB SSD

For more information visit [zynstra.com](http://zynstra.com)

## About Zynstra

Zynstra is transforming edge computing for retailers. Purpose built for the edge, our powerful software enables retailers to reduce their cost to serve in-store, and deliver superior customer experiences through faster innovation. Zynstra enables the virtualization of retail back office and front office IT resources, and offers specific virtualization solutions for POS, portable POS Tablet, Self-Checkout and Enhanced Compliance.

Zynstra software is certified on a wide variety of industry standard hardware, including but not limited to Hewlett Packard Enterprise (HPE) servers – with whom Zynstra has a long standing partnership.

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

**UK** Bath Innovation Centre, Broad Quay,  
Bath BA1 1U  
**+44 (0) 333 355 7055**

**US** 1700 7th Avenue, Suite 2100, Seattle  
WA 98101  
**+1 (844) 996 7872**



Powering the Retail Edge