Stratus® ztC™ Edge 100i and 110i

Zero-touch Edge Computing for your critical edge applications

Companies undergoing digital transformation are finding it difficult to upgrade computing infrastructure at the edge of their corporate networks.

Why? Harsh environmental conditions, and the lack of skilled resources, make deploying, managing, and maintaining computers at remote plants or branch offices especially challenging.

As more data gets generated by Internet connected devices and processed at these edge locations, companies need advanced computing infrastructure that's simple to use, easy to protect, and more autonomous.

ztC Edge is the answer

ztC Edge is a secure, rugged, highly automated computing platform that helps understaffed organizations improve productivity, increase operational efficiency, and reduce downtime risk at the edge of their corporate networks.

Designed for both OT (operational technology) and IT (information technology), ztC Edge is easy to deploy and secure, easy to locally and remotely manage, and easy to maintain and service. Self-monitoring, self-protecting, and self-synchronizing, ztC Edge saves companies time and money. With its built-in virtualization, automated protection, industrial interoperability, OT manageability, and field serviceability, ztC Edge enables the quick, easy delivery of both highly available and fault tolerant virtualized edge applications.

Key benefits

- **Greater efficiency**: With built-in virtualization host, industrial interoperability, and field serviceability, ztC Edge simplifies and shortens the time it takes to deploy, manage, and maintain your critical edge applications, saving you time and effort.
- **Simplified security**: With restricted USB ports, secure communication protocols, secure and trusted boot, role-based access controls, and easy-to-configure host-based firewall, you don't need to be a security expert to secure your ztC Edge platform.
- **Less downtime**: ztC Edge's self-monitoring and self-protecting features help reduce unplanned downtime. Because its operating environment can be updated while it's still running (without requiring a system reboot), customers experience less planned downtime.
- **More flexibility**: ztC Edge's rugged, compact, industrial form factor performs equally well in the control room, control panel, or shop floor, giving customers more choice. Its automated capabilities make it suitable for unmanned stations, or remote, decentralized locations with limited resources.

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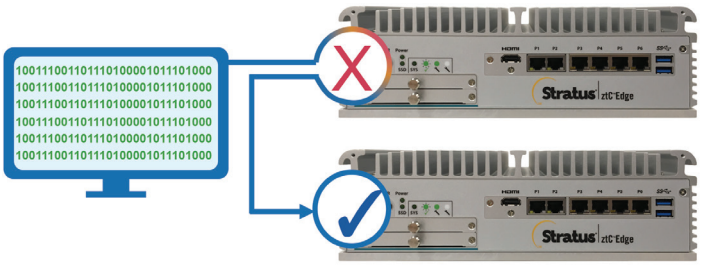


Automated protection

Key features

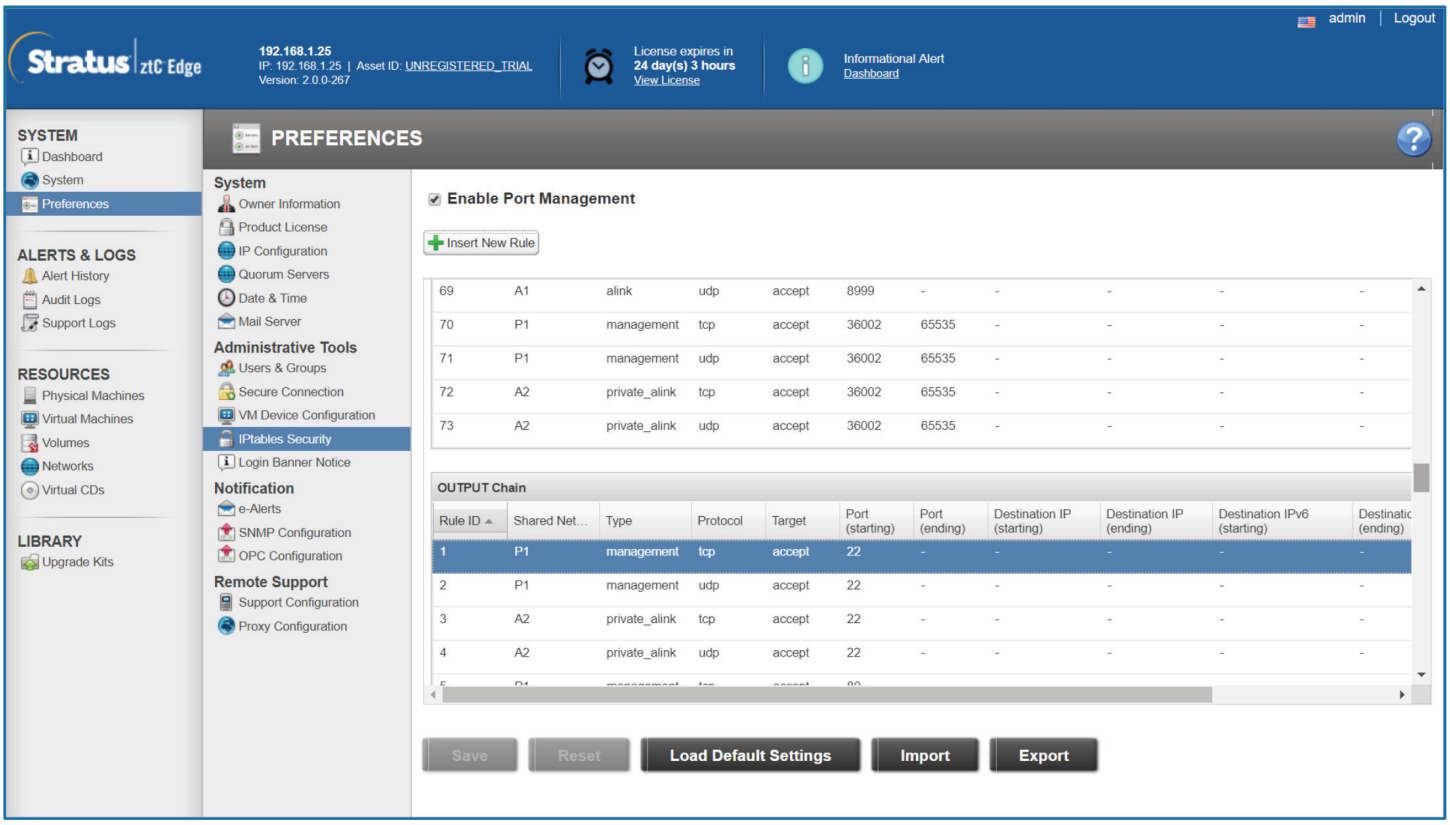
Stratus ztC Edge is a secure, rugged, highly automated computing platform that enables the rapid and efficient delivery of reliable business-critical applications in remote, understaffed locations at the edge of corporate networks. Features like its built-in virtualization, simplified security, industrial interoperability, OT manageability, rugged redundant nodes, automated protection, field serviceability, and complementary services, help companies increase productivity, while minimizing downtime risk.

Built in virtualization: ztC Edge ships with its own operating environment called Stratus Redundant Linux. It contains a virtualization host that supports both Windows and Linux guest operating systems, and OVF files and OVA images, including third party templates. An intuitive management console makes it easy for local and remote staff to set up, configure, import and manage their virtual machines.

Simplified security: ztC Edge is designed to help OT more easily secure their edge computing environment. A host-based firewall, restricted USB ports, role-based access controls with Active Directory integration, secure communications protocols, and secure and trusted boot, all work together to minimize your security exposure.

Industrial interoperability: ztC Edge supports common OT and IT protocols, making integration into existing industrial automation environments easier. SNMP requests and traps can be used to configure notifications and alarms. Customers can use OPC UA attributes, or a REST API, to present relevant system data within most third party systems management tools and dashboards.

OT manageability: ztC Edge ships with its own tool, the ztC Edge Console, that simplifies system and software management. With it, administrators can remotely access their systems, set thresholds and alerts, check for updates, backup and restore system settings and preferences, and easily manage their VMs.

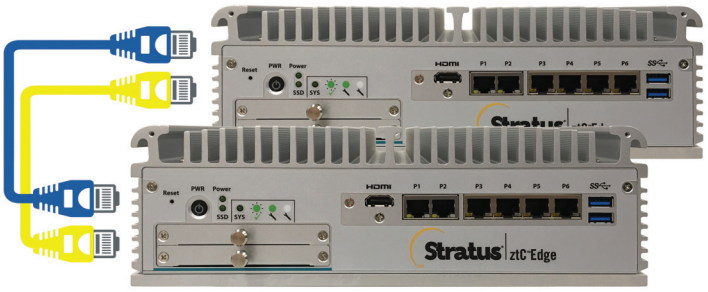


Simplified security

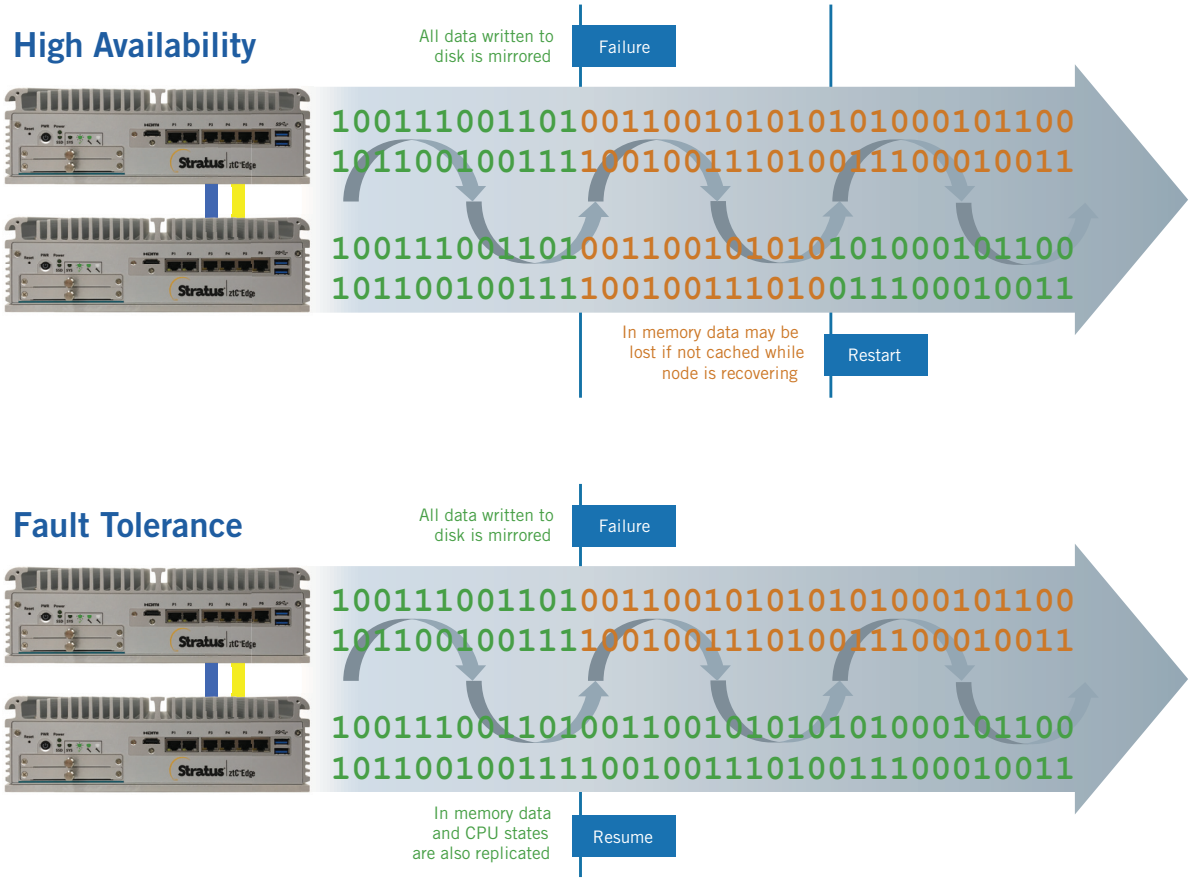
Rugged redundant nodes: Designed for the harsh conditions typically found in industrial locations, ztC Edge nodes can be deployed in the control room, control panel, or on the shop floor, closer to your devices that are generating data. More durable than standard servers or workstations, ztC Edge offers customers greater reliability and deployment flexibility.

Automated protection: When deployed as a redundant pair, ztC Edge provides instant protection for your workloads. Data is automatically replicated across nodes. VMs running on one node will automatically restart (High Availability mode) or resume (Fault Tolerant mode) on the other in the event of a failure. If ztC Edge detects a networking or disk failure on one node, it automatically re-routes traffic or uses data on the other node, without any operator intervention. Nodes can even be deployed across physical distances, for automated local site recovery.

Field serviceability: When deployed as a redundant pair, ztC Edge nodes are hot-swappable and auto-synchronizing, making field repairs quick and easy. Maintenance or repairs on individual nodes can be done to a running system (without a system reboot) to help ensure service continuity. This allows system repair to be planned and completed when its convenient for OT or IT staff.



ztC Edge 110i system



Customizable availability levels

Complementary services

Available with ztC Edge are system health monitoring and managed support services, that help ensure critical workloads continue to run with minimal customer effort. Stratus takes care of your ztC Edge systems so that you don't have to, letting you focus on more value-added activities. Also available are Stratus Cloud, secure access to a cloud-based storage facility, and ztC Advisor, a web-based tool for monitoring and managing multiple ztC Edge platforms.

ztC Edge Services

System Support	Features
8x5 web-based support	✓
Root cause problem determination	✓
Software updates and upgrades	✓
Secure access to self-service portal	✓
System Health Add-ons	**Features**
24x7x365 web and phone support w/30 min. critical response SLA	Optional
Advanced parts exchange	Optional
Proactive uptime monitoring Alert triage System log file review Predictive failure analysis	Optional
Media retention	Optional

Stratus Cloud: Secure, cloud based repository for customers to safely transmit, store, and retrieve their ztC Edge platform preference templates for simplified backup and restore, and scalable provisioning. Automatically authenticates users and groups using the same credentials specified in their Customer Service portal account.

ztC Advisor: A systems management solution that anyone can use, ztC Advisor simplifies the centralized monitoring and management of multiple edge computing platforms. Through a secure web-based portal, customers can quickly and easily view the health and utilization of their entire ztC Edge inventory, helping them remotely triage issues, improve productivity, and mitigate risk.

For more information about ztC Advisor, please visit **stratus.com/ztc-advisor**

For more information about **ztC Edge**, and other reliable edge computing solutions from Stratus, please contact your local sales representative, or visit **www.stratus.com/ztc-edge**

Other Edge Computing solutions

In addition to ztC Edge, Stratus offers ftServer, a rack mount fault tolerant server that's designed to run larger scale tier 1 mission critical workloads. Supporting 30+ VMs, ftServer delivers continuously available manufacturing operations and centralized control applications. For more information about ftServer, please visit **www.stratus.com/ftserver**

Technical specifications

First generation ztC Edge is available in two models, the 100i and 110i. Both systems are IP40 rated, can be wall or DIN rail mounted, and offer a fan-less, solid state design. The 110i is a more powerful system, to support larger, FT workloads, and those applications requiring more storage.

	ztC Edge 100i	ztC Edge 110i
Compute	Intel i7-6700TE, 2.4 GHz, 8 MB cache, 4 HT cores	Intel i7-8700T, 2.4 GHz, 12 MB cache, 6 HT cores
Memory	32 GB DDR4 2400	64 GB DDR4 2400
Storage	512 GB SSD	2 TB SSD
Networking	2 x 1 GbE (for a-links) 2 x 1 GbE (for plant networks)	2 x 10 GbE (for a-links) 6 x 1 GbE (for plant networks)
Operating Temperature[1]	–40 to 60 °C (–40 to 140 °F)	–20 to 55 °C (–4 to 131 °F)
Humidity	10 – 95% (non-condensing)	10 – 95% (non-condensing)
Shock and vibration	50G, 11 ms 3 Grms @ 5 – 500 Hz	50G, 11 ms 3 Grms @ 5 – 500 Hz
Input power[2]	9 – 36V (DC)	24V ± 5% (DC)
Dimensions	280 x 190 x 76 mm (11.02 x 7.48 x 2.99 in)	280 x 210 x 87 mm (11.02 x 8.26 x 3.42 in)
Weight	4.6 kgs / 9.2 kgs (10.1 lbs / 20.2 lbs)	6.1 kgs / 12.2 kgs (13.5 lbs / 27.0 lbs)
Availability support	High availability	Fault tolerance and high availability
Certifications	FCC, CE and others[3]	Class I Division 2 FCC, CE and others[3]
Host OS support	Stratus Redundant Linux[4]	Stratus Redundant Linux[4]
Guest OS support	Windows and Linux[5]	Windows and Linux[5]

[1]Operating temperature ranges listed are for DC power. When AC power is used (using the supplied adapters), the recommended range for both the 100i and 110i is 0 to 50 °C (32 to 122 °F).

[2]The supplied AC Adapter (100-240V, 1.8A, 50-60Hz) may also be used.

[3]https://www.stratus.com/services-support/customer-support/platform-support/ztc-edge-certification

[4]https://www.stratus.com/services-support/customer-support/platform-support/ztc-edge-host-operating-system-support/

[5]https://www.stratus.com/services-support/customer-support/platform-support/ztc-edge-guest-operating-system-support/

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