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ZEDEDA looks to augment its cloud-native open edge after raising \$72M series C

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The freshly funded vendor is poised to expand on its mission to provide edge computing for large-scale enterprises. One likely direction is to add more services — including AI — to its platform. While IT giants have similar designs on helping large enterprises corral the edge, ZEDEDA's openness and track record should help cement its standing.

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Introduction

Armed with a \$72 million funding round landed in February, ZEDED A is poised to expand on its mission to provide edge computing for large-scale enterprises. One likely direction is to add more services to its platform, as presaged by the recent introduction of a managed Kubernetes service — AI-related services are a further possibility. While IT giants have similar designs on helping large enterprises corral the edge, the vendor's openness and track record should help cement its place in this market.

THE TAKE

The financing signifies longevity, which is important for the large enterprises that the company caters to. It also indicates market belief, as ZEDED A now has a track record to show that its cloud-like edge succeeds in wide-scale industrial settings. One factor working in the vendor's favor is the maturity of the cloud ecosystem. Yes, this means a greater number of customers have the talents to create edge clouds themselves, possibly using the open-source version of ZEDED A's orchestrator, but they have also gleaned the complexity involved with this undertaking and might be motivated to seek a helping hand.

In that light, the company's openness and continued support of popular DevOps tools are crucial. Added services should help the company differentiate itself from do-it-yourself options — ZEDED A Edge Kubernetes Service, announced last year, points in this direction. The vendor is happy to play nice with other platform providers and larger players, but new points of competitive friction will emerge as its reach and capabilities grow.

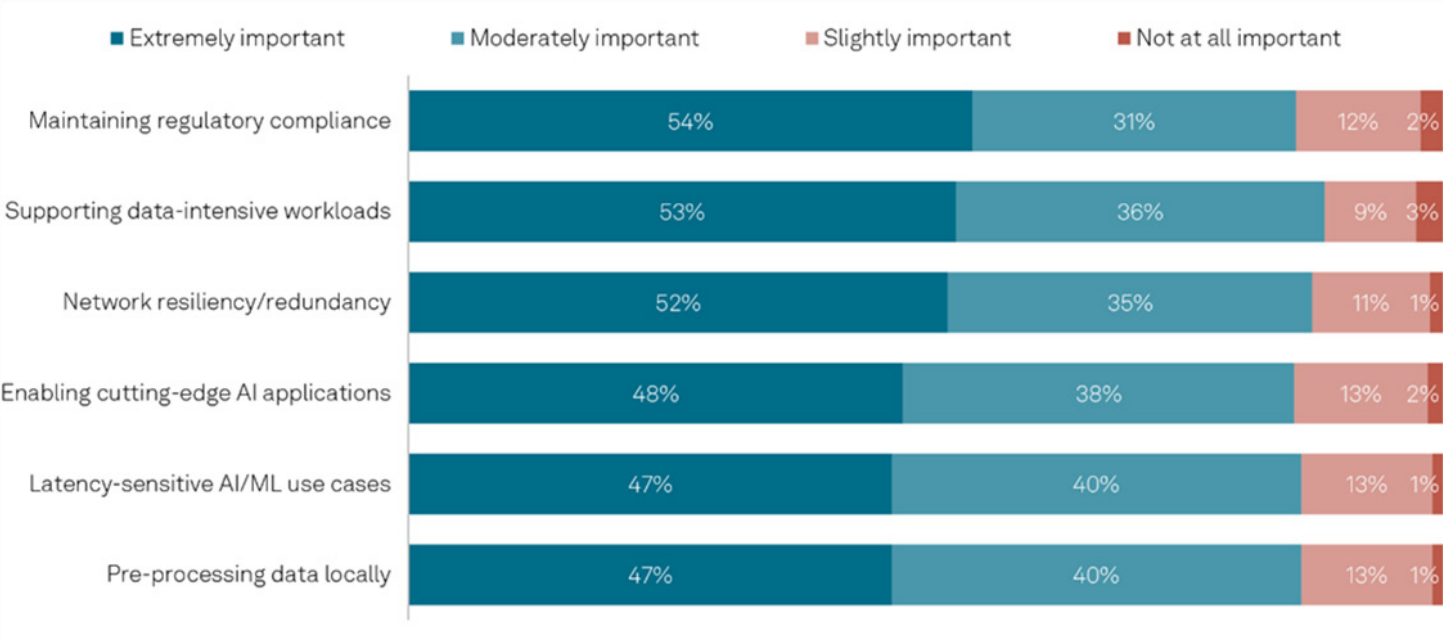
Context

Founded in 2016, ZEDED A offers management and orchestration to operate fleets of edge computing nodes at large scale — beyond tens of thousands of devices — across heterogeneous hardware. The result is a unified distributed edge that operates in an automated and cloud-like fashion. The vendor does not aspire to be a "cloud" supplier, but provides software that runs on the customer's hardware of choice. Recent product launches, however — including a managed Kubernetes service — bring its edge closer to parity with the capabilities of private clouds.

In February, ZEDED A raised a \$72 million series C round led by Smith Point Capital, which was founded by former Salesforce Inc. co-CEO Keith Block. The tranche included new investors The Hillman Company, LDV Partners, Endeavor Catalyst and Forward Investments (Dubai Electricity and Water Authority). Returning backers included Lux Capital, Almaz Capital, Coast Range Capital, Juniper Networks Inc., Emerson Ventures, Chevron Technology Ventures, 5G Open Innovation Lab, Rockwell Automation Inc. and Porsche Ventures. The company has raised \$127 million in total.

ZEDED A plans to use the latest funding partly to boost its total available market. The addition of AI-related services would seem a likely direction, as our research over the past few years indicates a consistent interest in running AI workloads at edge locations across the spectrum. In our Voice of the Enterprise: AI & Machine Learning, Infrastructure 2023 survey, 96% of respondents noted that they would prefer to conduct more training and inference in edge locations. As seen in Figure 1, their motivations go beyond latency to include regulatory compliance and the localization of data-intensive workloads (i.e., avoiding the back and forth of sending data to the public cloud). Artificial intelligence is a motivation for the edge as well, not only for lower latency, but also to enable cutting-edge applications.

Figure 1: Edge drivers go beyond low latency



Q: How important is the role of edge computing in your AI/ML strategy for each of the following?

Base: All respondents, abbreviated fielding (n=450).

Source: 451 Research's Voice of the Enterprise: AI & Machine Learning, Infrastructure 2023.

Technology

Edge Virtual Engine (EVE-OS) is an operating system and virtualization engine that originated at ZEDEDATA and is now open source, curated as one of The Linux Foundation's LF Edge projects. It is lightweight, consuming as little as 512 MB of RAM, and intended to run on any hardware, including common CPUs, graphics processing units and field-programmable gate arrays. Over 90 types of nodes are qualified, and ZEDEDATA can work with a customer to qualify any unconventional hardware as well. In terms of security, EVE-OS has a zero-trust operating model that includes crypto-based hardware ID, measured boot, remote attestation, distributed firewall, data encryption and more.

ZEDEDATA Cloud is the vendor's SaaS controller that watches over the EVE-OS nodes. It is the source for visibility and remote management, as well as for policy, which is applied across the fleet of nodes. The nodes receive configuration changes via a pull model by periodically checking in with the company's cloud, which enables ZEDEDATA to serve sites with unreliable network connectivity or poor accessibility — notably, its first production customer placed nodes on oil rigs. The intent — the desired end state — defined by the customer can be granular; for example, including thresholds for network and CPU performance.

The vendor has continued to add services to its platform, including ZEDEDATA Edge Access, which enables remote access to any device, and ZEDEDATA Edge Kubernetes Service, a managed Kubernetes offering. Both were launched in 2023. Additionally, the company provides a marketplace of third-party software, including guest operating systems and virtualized security functions.

Business model

ZEDEDA targets large enterprises that are already cloud-savvy. Smaller customers do not require the massive scale that the vendor's offering is built to support. Similarly, enterprises lacking cloud maturity will wring less value from its platform, which is geared toward developer-led organizations. Customers include 12 of the Fortune 500, including leaders in the manufacturing and mining, automotive, and oil and gas verticals.

The vendor's openness is a crucial element since most edge deployments require some customization. Its platform is designed to run on established IT infrastructure and work alongside legacy equipment and software. Given that it targets cloud-mature organizations, ZEDEDA must be flexible enough to work with customers' existing tools, such as container orchestrators — northbound APIs into other controllers are a crucial feature. Arguably, this openness puts ZEDEDA in “co-opetition” with many large players, including Microsoft Corp. — the vendor works in conjunction with Azure IoT Stack but will be a direct rival in some accounts.

ZEDEDA employs a direct sales force but also reaches the market via original equipment manufacturers. Some companies white-label its platform, offering it under their own brands. Examples include Emerson Co. (DeltaV Automation Platform), Rockwell Automation Inc. (FactoryTalk Edges) and Broadcom Inc.'s VMware (Edge Compute Stack).

Competition

While IT giants such as Dell Technologies Inc., Hewlett Packard Enterprise Co., IBM Corp. and Lenovo Group Ltd. have developed platforms to serve the enterprise edge, their plans often focus on unifying public clouds, private clouds and edge. ZEDEDA's target customers might place more value on the company's success with distributed scale and its pragmatic fit with existing infrastructure and applications. As such, ZEDEDA vies more directly with hyperconverged infrastructure specialists pivoting their wares toward edge, including Nutanix Inc. and Sunlight.io.

Of course, ZEDEDA has qualified its software to run on hardware from the aforementioned giants. The vendor also has partnerships with Microsoft Azure, including an integration with Azure IoT, and Google Cloud. All of these partnerships can become competitive situations in certain circumstances, and ZEDEDA could find this co-opetition tilting toward the competition side as it adds more services to its platform.

Several vendors have built out edge clouds that do not necessarily reach customers' premises, as ZEDEDA does. Nonetheless, they represent a potential alternative to ZEDEDA's edge in certain cases. Prominent examples come from the content delivery network camp, where Akamai Technologies Inc., Cloudflare Inc., Edgio Inc. and Fastly Inc. are deploying their networks to offer distributed cloud services. Cloudflare and Fastly, in particular, provide edge computing in the form of serverless isolates (JavaScript or WebAssembly), which activate faster than containers or virtual machines.

This type of serverless computing is not fully mainstream but is a promising direction for executing applications. That said, these distributed edge clouds do not yet allow the placement of computing in arbitrary locations, nor are they suited for low-connectivity environments, making them less viable for the IoT and OT types of customers that have come to rely on ZEDEDA.

In the other direction are vendors that place computing nodes granularly. EDJX is one IoT-minded example that initially targeted dense environments, such as smart cities, but can support large enterprises as well. Like some of the CDNs, EDJX has staked its computing on serverless functions.

SWOT Analysis

STRENGTHS ZEDEDA is tailor-made to slot into a legacy IT environment, serving large enterprises that want to “cloudify” the edge. Its openness further bolsters this angle. The new funding adds stability, which could alleviate a primary reservation that its potential customer base might have with a startup.	WEAKNESSES The vendor’s offering can be overkill for smaller enterprises, limiting its chances to land and expand as a midsize client grows. This is partly mitigated by OEM relationships, especially in the OT camp. Serverless computing, while not fully mainstream, is a hallmark of many potential competitors and a capability that ZEDEDA thus far lacks.
OPPORTUNITIES ZEDEDA has found success with cloud-mature customers but it can also look in the opposite direction, finding more ways to serve digital laggards who understand they must learn “cloud.” This admittedly is a more difficult path and rife with intangible obstacles, but it could also be a tempting growth vector.	THREATS The provider’s co-opetition relationships with large vendors could veer toward competition as its capabilities expand. In the other direction, established IT vendors are increasingly hungry for a share of the edge platform market and will continue to advance their own capabilities. These converging directions could intensify the competitive pressure on ZEDEDA.

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