

# **CYOLO** **RECEIVES THE 2023** NEW PRODUCT INNOVATION AWARD

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*Identified as best in class in the North American secure remote access for OT environments industry*

## Best Practices Criteria for World-Class Performance

Frost & Sullivan applies a rigorous analytical process to evaluate multiple nominees for each award category before determining the final award recipient. The process involves a detailed evaluation of best practices criteria across two dimensions for each nominated company. Cyolo excels in many of the criteria in the secure remote access space.

AWARD CRITERIA	
<i>New Product Attributes</i>	<i>Customer Impact</i>
Match to Needs	Price/Performance Value
Reliability	Customer Purchase Experience
Quality	Customer Ownership Experience
Positioning	Customer Service Experience
Design	Brand Equity

### *Match to Needs, Positioning, and Design*

Cybersecurity threats are growing, and the threat landscape evolves constantly. A critical challenge in cybersecurity is user access vulnerabilities. With 50% of companies having at least 100 third-party vendors and 96% allowing third-party access to critical assets, the risk of cyberattacks on operational technology (OT) environments is increasing. For instance, 45% experienced a security incident. Such incidents or interruptions in service in an OT environment can cause enormous damage to a company's business through production downtime and significant revenue loss and risk the lives of employees and the environment.

Today's hackers do not break in but log in with good stolen credentials, with 61% of compromises involving stolen credentials. Existing network access solutions have severe vulnerabilities, and legacy applications with no modern security capabilities and air-gapped environments without connection to cloud security tools make providing secure, authenticated user access a challenge. Yet, OT environments want to keep everything safe and running.

Amid this scenario, Tel Aviv, Israel based Cyolo offers a universal zero trust access (ZTA) solution that empowers organizations and their security leaders with controls to provide secure, identity-based asset access (access based on validated ID) to on-premises, remote, and third-party users. Secure remote access (SRA) is one of the SANS 5 ICS cybersecurity critical controls: ICS incident response, defensible architecture, ICS network visibility monitoring, SRA, and risk-based vulnerability management. Frost &

Sullivan finds that Cyolo goes beyond SRA for safely connecting OT environments and has moved the SRA category forward for the following reasons.

One of Cyolo's main differentiators is the Cyolo Edge. This on-premises or cloud based broker routes the user's requests based on a server name indication (SNI) header to the relevant identity access controller (IDAC) and can operate without external connections. Cyolo's solution can exist entirely disconnected from the internet, which means it does not need an internet connection to operate.

The company places Cyolo Edge in the middle at layer 3.5, the Demilitarized Zone (DMZ), and the Edge is

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**– Sankara Narayanan  
Industry Principal**

a docker container. It is software that Cyolo has dockerized, and it could run or function from any place deemed appropriate for it. Therefore, Cyolo can put the Edge on a virtual machine or a bare metal computing environment. The Edge is the routing engine that tells the traffic where to go.

For example, when a user wants access to operational control levels 3/2 (e.g., engineering workstation, human-machine interface) and process control levels 1/0 (e.g., programmable logic controller/remote terminal unit, sensors, and actuators), remote users send a request. This means it is encrypted in a

transport layer security (TLS) 1.3 connection and sent to the Edge. In the TLS handshake, there is the SNI, so Cyolo does not decrypt the traffic at any point in transit. Based on the SNI and the handshake, the Edge routes the request to the relevant IDAC, which terminates the session. Then, IDAC validates the user, determines their entitlement, and makes the connection to whichever operational or process control piece they are trying to connect to.

To this end, Cyolo's Edge and IDAC only provide valid and entitled user access. All interactions are fully monitored and reported. Therefore, although users come from outside the specific levels, Cyolo ensures full accounting, validation, and entitlement before allowing them to access, touch, or talk to the different operational and process control pieces. Overall, Cyolo's ZTA solution does not allow inbound traffic from the outside and hides all applications and resources from users as connections happen within a trusted boundary.

Remote users are also increasing because it is not economical to have a technician flying to the site. Even for remote users, the Edge will receive traffic within the DMZ. They will have a fully encrypted TLS tunnel, and then the Edge decides where it needs to go before dropping off at the IDAC and providing remote users controlled access to the different pieces. Although several outliers would require installing an agent on the device, which will make it easier—especially for third-party technicians—for 95% of use cases, Cyolo does not require agent installation on devices, which makes Cyolo's ZTA solution one of the most secure on the market.

While traditional remote access and connectivity methods such as virtual private networks allow broad network access where one good stolen credential is enough for an attacker or a hacker to gain access to

a network, Cyolo is strikingly different as it minimizes the attack surface by giving users only asset access and not broad network access. Identity-based asset access reduces the risk of hackers and attackers gaining access to a network through stolen credentials.

Cyolo offers a single-platform approach with complete security by combining the best of multiple technology categories. Therefore, another thing that Cyolo does differently from competing solutions is that it can perform Identity and Access Management natively in its platform and does not require integration with other platforms or tools. For example, it does not have to integrate with Okta (an identity and access management company), its active directory, or other tools. This means that when an external person tries to log into a company's environment remotely, Cyolo can add that person as a user to Cyolo's local identity and access management tools, not the company's corporate identity access management tool. It can keep users separate from the main IT systems while validating and authenticating them to do their tasks.

Cyolo also natively has many features customers expect from a privileged access management tool. If customers require a supervised session while connected or a specific approval workflow that kicks off before they receive access, Cyolo could host passwords and vault passwords inside its system. This is helpful because at many engineering workstations, the employee has the password taped on the screen, and it is probably as easy as admin 1234 or something else equally generic. Anyone can log into that system; no one knows who they are. Since Cyolo can provide a password vault, it can obfuscate and yet give access to the machine appropriately and track exactly which user used that vaulted password to access the device.

Frost & Sullivan applauds Cyolo for delivering seamless and secure zero-trust access to all assets for all users and providing safe, modern connectivity to the OT environment.

### ***Customer Ownership, Purchase, and Service Experience***

Cyolo's true universal ZTA solution and user interface render an enriched user experience and ease of use. It can work or integrate directly with a customer's existing tech stack: legacy applications, isolated and air-gapped environments, current network topology, and existing identity infrastructure. Keeping in mind that modern security best practices such as multifactor authentication/single sign-on exclude some legacy applications or systems, Cyolo has designed its product to work with every application, which makes Cyolo appealing to the OT industry.

Cyolo also provides end-to-end encryption to ensure all sensitive data remains secure within the customer's own environment. In contrast, other solutions lack end-to-end encryption. Cyolo offers safe, modern connectivity to OT environments without impeding business operations and production systems or disrupting the employee or operational/business workflows, which are critical for a company to stay secure, agile, and productive. Customers can implement Cyolo within a day. Ease of use ensures all employees and partners use Cyolo's product. Since Cyolo can work even with legacy applications, there is no need for costly upgrades or replacements to bring modern identity security to a company's existing technology.

The solution is easy to implement and requires no change management. Cyolo can install the software in less than 10 minutes via Docker. In addition, competing solutions have challenges with multiple

distributed sites and remain severely limited by the type of traffic they can handle, while Cyolo does not have these challenges. Cyolo empowers companies worldwide to secure high-risk access scenarios as it is possible to safely connect, manage, monitor, and revoke access to only the assets employees and third-party users need to get the job done.

Cyolo raised \$60 million in Series B financing in June 2022 to accelerate its solution's global presence in addition to offering higher security, productivity, and operational agility to customers pursuing digital transformation. The company's total funding is now \$85 million, including a Series A round completed in 2021.

The following case study/success story highlights Cyolo's customer impact:

The network of leading power plant operator Rapac Energy is isolated and disconnected from the public

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internet as the company cannot connect its system to the internet for security reasons and due to regulations. The company was looking to securely provide access to its OT and supervisory control and data acquisition (SCADA) systems to external suppliers, global support teams, and customers, as employees still need to connect with external international support teams and customers.

and simple-to-use-and-manage solution. With Cyolo providing secure access to OT and SCADA systems, securing access for third parties and customers worldwide, and recording and auditing user sessions, Rapac's hundreds of global users now connect securely. The company saved hundreds of thousands of dollars and has an improved security posture and business continuity. In addition, instead of buying multiple systems, Rapac now uses only one tool to remotely connect employees, third-party suppliers, and customers across both IT and OT, as Cyolo provides an all-in-one solution. The entire Cyolo implementation process, including systems training, took only one day.

Rapac Energy chose Cyolo to solve its connectivity challenges. Cyolo offers a single, unified, extensive,

*“No solution gives me so much control and security like Cyolo. It's everything I need in one solution.”*

*– Shlomo Kamilyan, CISO and CIO, Rapac Energy*

## Conclusion

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Companies need solutions that can deliver seamless and secure access to all their assets for all their users. Cyolo's ZTA solution successfully addresses this need. The company solves the shortcomings of traditional remote access and connectivity methods, providing access only to valid and entitled users and fully monitoring and reporting all interactions. Cyolo provides identity-based asset access, not network access, thus, reducing the risk of hackers gaining access to a network through stolen credentials. End-to-end encryption, Identity and Access Management capabilities, the ability to work with every application, and not requiring the installation of more agents on devices differentiate Cyolo. Cyolo's solution is easy to implement and deploy with no change management, integrates directly into a customer's tech stack, and does not impede or disrupt business operations, production systems, and employee or operational/business workflows. Implementation within a day further enhances customer value proposition. Frost & Sullivan is impressed with Cyolo's ZTA solution for moving the SRA category forward and providing secure, modern connectivity to the OT environment.

For its strong overall performance, Cyolo earns Frost & Sullivan's 2023 North American New Product Innovation Award in the secure remote access market for OT environments.

## What You Need to Know about the New Product Innovation Recognition

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Frost & Sullivan's New Product Innovation Award recognizes the company that offers a new product or solution that uniquely addresses key customer challenges.

### Best Practices Award Analysis

For the New Product Innovation Award, Frost & Sullivan analysts independently evaluated the criteria listed below.

#### *New Product Attributes*

**Match to Needs:** Customer needs directly influence and inspire product design and positioning

**Reliability:** Product consistently meets or exceeds customer performance expectations

**Quality:** Product offers best-in-class quality with a full complement of features and functionality

**Positioning:** Product serves a unique, unmet need that competitors cannot easily replicate

**Design:** Product features an innovative design that enhances both visual appeal and ease of use

#### *Customer Impact*

**Price/Performance Value:** Products or services provide the best value for the price compared to similar market offerings

**Customer Purchase Experience:** Quality of the purchase experience assures customers that they are buying the optimal solution for addressing their unique needs and constraints

**Customer Ownership Experience:** Customers proudly own the company's product or service and have a positive experience throughout the life of the product or service

**Customer Service Experience:** Customer service is accessible, fast, stress-free, and high quality

**Brand Equity:** Customers perceive the brand positively and exhibit high brand loyalty

## About Frost & Sullivan

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- **Growth Pipeline:** Continuous Flow of Growth Opportunities
- **Growth Strategies:** Proven Best Practices
- **Innovation Culture:** Optimized Customer Experience
- **ROI & Margin:** Implementation Excellence
- **Transformational Growth:** Industry Leadership



## The Innovation Generator™

Our 6 analytical perspectives are crucial in capturing the broadest range of innovative growth opportunities, most of which occur at the points of these perspectives.

### Analytical Perspectives:

- **Mega Trend (MT)**
- **Business Model (BM)**
- **Technology (TE)**
- **Industries (IN)**
- **Customer (CU)**
- **Geographies (GE)**

