

AVES ENERJI VE GIDA AND RUCKUS SOLUTIONS: ELEVATING STANDARDS THROUGH UNWAVERING COMMITMENT TO QUALITY



30% reduction in
picking & packing



99,3 % inventory
precision



70% slashed barcode
tracking errors

AVES Enerji ve Gıda is a key player in Turkey's oilseed processing, biodiesel production, and peanut processing industries. As part of the AVES Group, it operates fully integrated facilities equipped with next-generation technology—contributing to Turkey's crude sunflower oil supply and production.



aves

Customer
AVES

Location
Turkey

With a team of 800 dedicated individuals and three strategically located manufacturing facilities across Turkey, AVES is well positioned to meet the growing demands of the Turkish market. The company's annual production capacity exceeds 1,5 million tons of vegetable oil, bran, and biodiesel, with significant contributions from its facilities in Mersin, Amasya, and Silopi.

The company is renowned for its Safya and Ayzen branded edible oils, which are known for their consistent quality, achieved through advanced technology and investments.

AVES engages in commodity trade—sourcing products like soybeans, sunflower seeds, corn, safflower, and wheat directly from producers and trading them in over 70 countries.

In summary, the company combines expertise, future-ready technology, and a commitment to quality.

REQUIREMENTS

- Stable and reliable network
- Standardization network segmentation
- Easy implementation
- Improve network performance
- Network security
- Traffic prioritization
- Network analysis/detailed reports

SOLUTION

- RUCKUS® access points (APs)
- RUCKUS ICX® switches
- RUCKUS One® network assurance and business intelligence platform

KEY OUTCOMES

- Business continuity
- User-friendly network environment
- Real-time monitoring and production control
- Network visibility
- Centralize management
- Cost-effective solution
- Superior global support
- Future-ready technology

The need for a well-structured, reliable network

Manufacturing environments are complex by nature, requiring seamless communication across departments, systems and facilities to provide operational efficiency. Without a well-structured network, manufacturers often encounter significant challenges that can compromise business performance and security. Network segmentation is a crucial aspect of AVES, as it facilitates the isolation of different functions—such as production, warehousing, quality control, and administration—while also organizing users and devices into separate networks.

“To identify the most suitable solution, three different brands were evaluated during the quotation period. RUCKUS emerged as the optimal choice, offering a balance between cost-effectiveness and performance. Consequently, RUCKUS was selected for deployment in the AVES Network project. It is important to note that RUCKUS solutions fully meet our technical requirements and even exceed them in several areas.”

Sefa Atasoy

IT Manager, AVES Enerji ve Gıda San.

Facilitating network reliability is paramount to minimizing downtime. Segmenting VLANs, as AVES does, is a proven method of reducing the risk of disruptions—preventing a single network failure from impacting the entire production line.

Furthermore, enhancing security was imperative to mitigate vulnerabilities, prevent unauthorized access, and safeguard sensitive operational data.

Given the widespread distribution of AVES’s factories, effective mobile warehouse management was crucial for maintaining accurate, real-time inventory tracking.

Network standardization with RUCKUS solutions

The project deployment took around six months, including out-of-stock deliveries and the implementation period.

As AVES utilized multi-brand network equipment, it was necessary to consolidate technical integration and management into a single, standardized brand to streamline operations.

The RUCKUS One cloud-based solution has been instrumental in standardizing the multi-brand network equipment by providing intelligent network management, seamless interoperability and AI-driven automation.

One of its key value propositions is the “single pane of glass” approach, which eliminates the need for multiple applications to manage the network.

Its technology focuses on Wi-Fi® innovations, AI-driven network optimization and secure connectivity enabling different brands of network equipment can work together efficiently.

RUCKUS One plays a key role in simplifying network management, reducing complexity, and optimizing performance across various network devices. Additionally, it supports Zero Trust Architecture (ZTA).

"We use the RUCKUS One wireless management panel particularly in units where handheld terminals are more frequently used. Being able to monitor and anticipate alarms in advance allows us to take proactive measures with ease. Network continuity has been secured, and tracking devices is now more straightforward. The instant application of configurations to devices has also made network management more seamless and efficient."

Emre Akcan

Network Administrator AVES Enerji ve Gıda San. Tic. A.Ş

RUCKUS APs employ robust security measures, including WPA3 security and 802.1X authentication, to protect sensitive manufacturing data and prevent unauthorized access, facilitating compliance with industry regulations.

RUCKUS APs can dynamically assign VLANs based on user roles or device types, such as warehouse handy terminals. Segmenting traffic this way enhances security by isolating different types of traffic and applying specific security policies to each VLAN. Additionally, RUCKUS APs support Dynamic PSK™ (Dynamic pre-shared keys), a proprietary RUCKUS security technology, enabling Wi-Fi guests to easily connect to the network while maintaining stringent security.

The APs are equipped with BeamFlex® and ChannelFly® technologies, enabling them to function reliably in challenging manufacturing environments, where large metal structures and machinery interference can block Wi-Fi signals and create dead zones. This provides reliable connectivity and minimal downtime.

The RUCKUS ICX switches included in the project are ideal for manufacturing environments—offering high performance, low latency, and reliable data transmission for real-time applications. Their scalability allows seamless network expansion, while advanced stacking simplifies management and avoiding redundancy.

Equipped with robust security features like access control lists (ACLs) and 802.1X authentication, they protect sensitive data and support PoE/PoE+ capabilities—enabling power delivery to IP cameras, sensors, and access points, reducing infrastructure complexity. RUCKUS One centralizes their management, streamlining operations, while their resilient design withstands the harsh manufacturing conditions.

These cost-effective switches help AVES optimize connectivity, enhance efficiency, and maintain a competitive edge.

"A crucial factor in our decision was the exceptional support from our partner Turcom. Their solution-oriented approach and rapid response time played a key role in guiding us toward the best implementation strategy. We achieved our targeted performance and successful project results with the field analysis and POCs we conducted together with Turcom's widespread and effective technical staff."

End-to-end optimization

The implementation of RUCKUS network infrastructure marked a turning point in AVES's smart manufacturing journey, delivering measurable improvements across every layer of its operations.

Productivity saw a sharp rise, with inventory management and order fulfillment efficiency increasing by 18%. Warehouse turnaround times improved by 27%—driving faster, more agile logistics.

IT support demands plummeted, as network-related tickets fell by 70%. Critical operations benefited most, with monthly incidents dropping from 20 to just six.

Operational efficiency strengthened, with a 30% reduction in picking and packaging errors. Material recovery time dropped from 12 minutes to eight—streamlining workflows across the board.

Data accuracy was elevated, achieving 99.3% inventory precision (previously, it was 95%), while barcode tracking errors were slashed by 70%.



Network reliability drastically improved, with downtime decreasing by 75%, from eight hours per month to only two. Circuit stability for mobile terminals and IoT sensors rose above 98%, while AGV outages dropped 40%.

Technology upgrades delivered significant cost savings, reducing manual operations by 35% and resulting in approximately 180,000 Turkish lira in annual labor and maintenance savings. Network maintenance costs were reduced by 50%.

Other key outcomes included:

- 100% uninterrupted RFID integration
- A reduction in mobile component reconnection times from 40 seconds to just three seconds
- A 70% drop in wireless-related production line interruptions
- A 99.98% continuity rate in operational data distribution

The journey to smart manufacturing

RUCKUS technology enabled AVES to build a connected, future-ready operation. Key benefits include:

- **Stable, reliable network:** Enhanced continuity reduces disruptions and protects production output.
- **Improved client satisfaction:** Fewer connectivity issues helps build trust with employees, IT staff, and external stakeholders.

- **Proactive network intelligence:** With the RUCKUS One network assurance platform, AVES can analyze traffic patterns and detect anomalies early—mitigating performance and security risks.
- **Seamless system integration:** Open standards and APIs simplify connectivity between new technologies, legacy systems, and third-party services.
- **Insight-driven management:** Rich network reporting empowers informed decisions—aligning operations with strategic goals.
- **Cost-effective growth:** Intuitive interfaces and automation drive scalability while keeping complexity and cost under control.

“Our experience with RUCKUS Networks has been overwhelmingly positive, and we are confident that choosing their solutions was the right decision. By significantly reducing our workload, RUCKUS has provided an efficient and effortless networking experience, offering a ‘fire and forget’ solution for IT professionals. The global support team has also been extremely helpful, further reinforcing our confidence in this choice.”

Sefa Atasoy

IT Manager, AVES Enerji ve Gıda San.



Turcom (Member of the RUCKUS BIG DOGS Partner Program). Since 1993, Turcom has provided competitive solutions regarding ICT, digital transformation and low current. We use the opportunities provided by information technologies (IT) to build brighter futures for medium and large-scale enterprises. We are a new-generation system integrator working to help our customers and partners make tangible impacts in their businesses.

For 32 years, we know that our services, born from the unique combination of consultancy, support, and change management in corporate information technologies, make organizations stronger and more resilient. Our mission is to bring together the opportunities offered by IT in a way that meets the business needs of enterprises.

Our sector-independent tech solutions include: corporate network, data and network solutions, data systems, low current and infrastructure, endpoint security and event management, cloud data centers, digital transformation, data center infrastructure, Turcom-branded software solutions, managed services, multimedia, and technical consultancy.

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RUCKUS Networks. RUCKUS Networks designs and builds truly purpose-driven network infrastructure that meets the strictest requirements of all kinds of enterprise environments. Together with our dedicated go-to-market partners, we enable customers to deliver exceptional network experiences, making RUCKUS Networks one of the most trusted brands in the business—a loyal companion ready to help get the job done, whatever it takes.

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