CyberLogitec

Images courtesy of DP World Yarimca

Setting Sights High
Eagle Eye solution

DP WORLD
Yarımca

Located in the Korfez district of Kocaeli province, DP World Yarimca is a vital link in the Europe-Asia trade routes, enabling trade from the heart of Turkey's most industrialized region, Izmit Bay. The deep-sea terminal is part of DP World's global network of 82 marine and inland terminals across six continents.

When it officially opened in 2016, it was the first port in Turkey to:

- Use remote-controlled gantry cranes with automated gate operations
- Use remote-controlled RTGs (Rubber Tire Gantries)
- Use mega scanners that can handle 120 containers per hour
- Have a truck parking system within reach of a harbor

DP World Yarimca remains a trailblazer in embracing innovations: it has implemented the ISO 27001 Information Security Standard and also became the first terminal in Turkey to be awarded the ISO 28000 Security Management System for the Supply Chain. In addition, a 12,740km-long railway line opened and the port now has uninterrupted links to London and China.

Sprawling over 460,000 square metres, DP World Yarimca is one of the largest container terminals in Turkey, with a capacity to handle up to 1.3 million containers per year. With state-of-the-art technology and infrastructure, it is known throughout the Izmit Gulf region as Turkey's most advanced port.

CHALLENGES

Setting up a new terminal is not as easy as it looks. While it was an opportunity to procure the latest technologies, the DP World Yarimca team also wanted to ensure the digital roadmap could be futureproofed to respond to new emerging trends and issues in port technology, global trade and environment.

Significant resources went into laying the groundwork. The team investigated potential opportunities, risks and solutions, and articulated the corporate vison through a list of business requirements, which included:

- Real-time digital information for all players in the port community; simplified information-sharing workflows
- Maximum automation of processes
- Capability to anticipate and predict, for instance, arrival times, container availability
- Optimized use of port land and assets
- Enhanced personnel safety and security of assets and vessels

In consultations and evaluation rounds, CyberLogitec's Eagle Eye solution, already in use at two DP World terminals, outshone other market options. In addition, its upgrade plans waiting in the pipeline would further accelerate its offerings far beyond those of the closest competitor. In late 2016, DP World Yarimca went live with Eagle Eye.

> *Eagle Eye has redefined terminal operations. Its realistic 3D views and data visualizations enable real-time, remote inspections and support. It comes bundled with functionalities like Asset Monitoring System, Virtual Terminal, Auto Container Hand-Off and real-time KPI reporting. It is readily compatible with third-party systems, allowing us to deploy new devices in real time. Safety and security levels have increased, thanks to the rich suite of features catering to complex environments. This is a true, solid turn-key solution.*

Ugur Ileri
Head of Information Technology

RESULTS

Eagle Eye's key selling feature is its comprehensive Virtual Terminal functionality, which integrates Internet of Things (IoT) signals from cranes, yard trucks, sensors and other equipment to display their actual, real-time positions in 2D or 3D views of the terminal. This power is further amplified by the combination of Differential Global Positioning System (DGPS) and Inertial Navigation System (INS), overcoming blind spots that plague CCTV monitoring.

Head of IT, Ugur Ileri, said, "This is unprecedented. On a single screen, we have every inch of the terminal in 3D-view, with real-time data flows visualized. You can control an equipment, check its speed limit and perform predictive maintenance without having to be in the terminal."

He continued saying, "This is a real game changer. We are unclogging congestion points as soon as they are starting to build up; workload distribution and equipment usage are far more optimized, reducing the carbon footprint."

Eagle Eye was a compelling proposition for its ability to work with third-party Terminal Operating Systems (TOS), which enabled the team to pair the systems seamlessly and realize value from the get-go. In addition, by integrating DGPS/INS, RFID and Position Detection System (PDS) technologies, the IoT-enabled platform enabled greater accuracy and efficiency in container handling, and improved workload distribution.

Health, safety, security and environment (HSSE) considerations also drove the choice of Eagle Eye. Head of Operations, Enes Oguzhan Agca, said, "HSSE is a critical factor in our business requirements for any operation or system, and Eagle Eye's capabilities made it the one solution that could meet all our needs."

Enes highlighted that the use of RTLS (real-time location system) would give the company ample advantages into the future. Enes explained, "Compared to Global Positioning System (GPS), Eagle Eye's RTLS offers greater precision that improves yard allocation, transport management and asset auditing. From a HSSE point of view, this increased accuracy benefits the safety management system, providing better protections for our employees."

For all the benefits Eagle Eye has brought about, the solution has been highly cost-efficient due to its ability to couple seamlessly with DP World Yarimca's TOS and other devices, enabling lower implementation costs.

The DP World Yarimca team is working to enable smarter, more environmentally-friendly trade. It will also build up the port's capacity in anticipation of increasing exports from Turkey. Ugur said, "From training through to construction, Eagle Eye will remodel how we work. Eagle Eye will help us usher in a new era in port operations."

> *The Eagle Eye solution is enabling us to re-imagine how we work and has helped deliver substantial value to all port users. We are confident of growing our capacity in supporting our customers to service 1.5 billion consumers across Europe, Eurasia, the Middle East and North Africa.*
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> **Enes Oguzhan Agca**
> *Head of Operations*

CyberLogitec empowers the world's supply chain with advanced technologies that solve operational challenges and meet the exacting demands of our industry. From maritime shipping operations, port and terminal operating systems to logistics forwarding and warehouse management, our integrated solutions help your business respond swiftly to changing operational needs. Our technology's advanced algorithms digitize and automate data exchanges to improve efficiency, competitiveness, productivity, and service, no matter which part of the global supply you operate within.

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