

Private network to monitor & improve port operations

Athonet, a Hewlett Packard Enterprise acquisition delivered private 5G to expand and optimise traffic of containers and goods



Note: This picture is not representative of end-customer



Steveco is the company who manages the Hamina-Kolta port, which is Finland's largest multi-use port.



TRANSPORTATION & LOGISTICS

the challenge

The client company needed to improve its communication system to have broadband access for video surveillance and to manage all other operations in the port. On the one hand there was the need to be able to remotely control the crane machinery and an effective container reconciliation system, on the other hand to guarantee priority communication for the staff even with push-to-talk mode. Having to cover a large area and ensure proper coordination of operations, the system had to be geo-redundant and highly available

the solution

-  **ATHONET 5G CORE**
-  **GEO-REDUNDANT ON-SITE**
-  **SELF-DEPLOYMENT**
-  **SIMPLE AND ECONOMICAL SOLUTION**

the result

- 5G network fully autonomous and geo-redundant
- Indoor and outdoor coverage for vehicles in the harbor area
- Real-time video streaming and analytics to track any damage to cargo
- Remote control of crane machinery and container reconciliation
- Prioritized staff communications and push-to-talk technology

INTRODUCTION

Port and logistics systems are usually limited by the amount of data and information that can be shared using current technology. 5G addresses these issues by offering higher transfer speeds, lower latency and greater data density compared to existing platforms. In areas where hundreds of sensor devices communicate across the same network, such as ports, these features play an all-important role in boosting productivity and security.

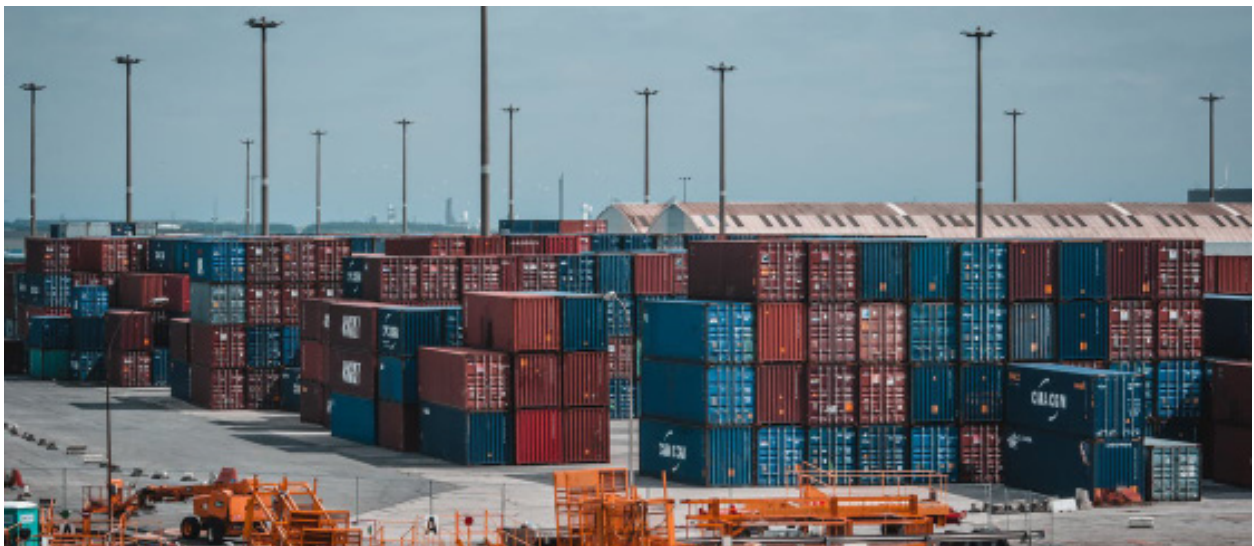
The solution is based on 5G architecture. EDZCOM's Edge Connectivity networks are local, fully autonomous and geo-redundant, making them suitable for business-critical usage in demanding environments.

DESCRIPTION

EDSCOM's Edge Connectivity solution incorporating the Athonet 5G-SA core ensures a reliable and continuous connection, allowing terminal operations to flow 24/7 year-round. The geo-redundant autonomous on-site installation infrastructure provides business resiliency against catastrophic events, natural disasters or other situations that might result in network or data outages for a period of time.

BENEFITS OF DEPLOYMENT

- **Indoor and outdoor coverage for vehicles in the port area:** enables seamless ship-land communication that in turn optimizes port operations
- **Complete visibility in real time:** now machine operators can monitor the loading and the unloading of ships and all other operations in the entire terminal area.
- **Real-time video streaming and analytics:** to track any damage to cargo in the terminal's custody and substantiate responsibility for insurance purposes
- **Reduction of ship delivery times:** maximization of container terminal traffic and safety of port resources.



CONCLUSION

Athonet's core network and IMS platform offered a reliable and scalable solution while providing the necessary visibility, control, self-service, and affordability. With a geo-redundant solution across the port sites, Athonet also provides a highly scalable and modular way to deploy and manage new services to improve port operations.

“When data doesn’t flow, that causes a domino effect. The initial cost for us would be significant in terms of lost work and lost turnover. Aside from allowing us to manage the continuity of port operations efficiently, the solution provide security—no need to worry about hacking or reliance of public telecom networks since a private core network is in use and it’s on our site.”

— **Karri Kangas**, System Analyst, Stevedore Command

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Athonet is a leader in private cellular network technology delivering a mobile core to enterprises and communication service providers to connect applications, devices and radios.

With more than 18 years of experience in delivering 4G/5G mobile core solutions to customers and partners in every region of the world, Athonet supports key industries where network control, mobility, security, performance, and cost are important for business outcomes.



a Hewlett Packard Enterprise acquisition

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