

An aerial, top-down view of the deck of a container ship. The deck is filled with numerous colorful shipping containers in shades of red, blue, yellow, and orange, arranged in neat rows. In the center of the deck, there is a complex arrangement of machinery, including cranes and other equipment, with several yellow and white vehicles or components. The ship's hull is visible on the right side, and the dark blue water of the sea is seen at the bottom and left edges of the frame.

Tech
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TECH MAHINDRA **ContainerSight**

Enhance Terminal Efficiency and
Reduce Operational Cost by Real
Time Inferencing of Video Analytics
Solution.



Overview

A container changes several hands in its journey from the sender to the receiver—from the manufacturer's warehouse to the logistics solution provider's storage to port authorities, and so on. Therefore, damage or pilferage at any stage of this journey is a real possibility, exposing the handling company to liabilities and reputation loss. Currently, logistics companies and port management firms have no foolproof way of proving that the damage did not happen at their end.

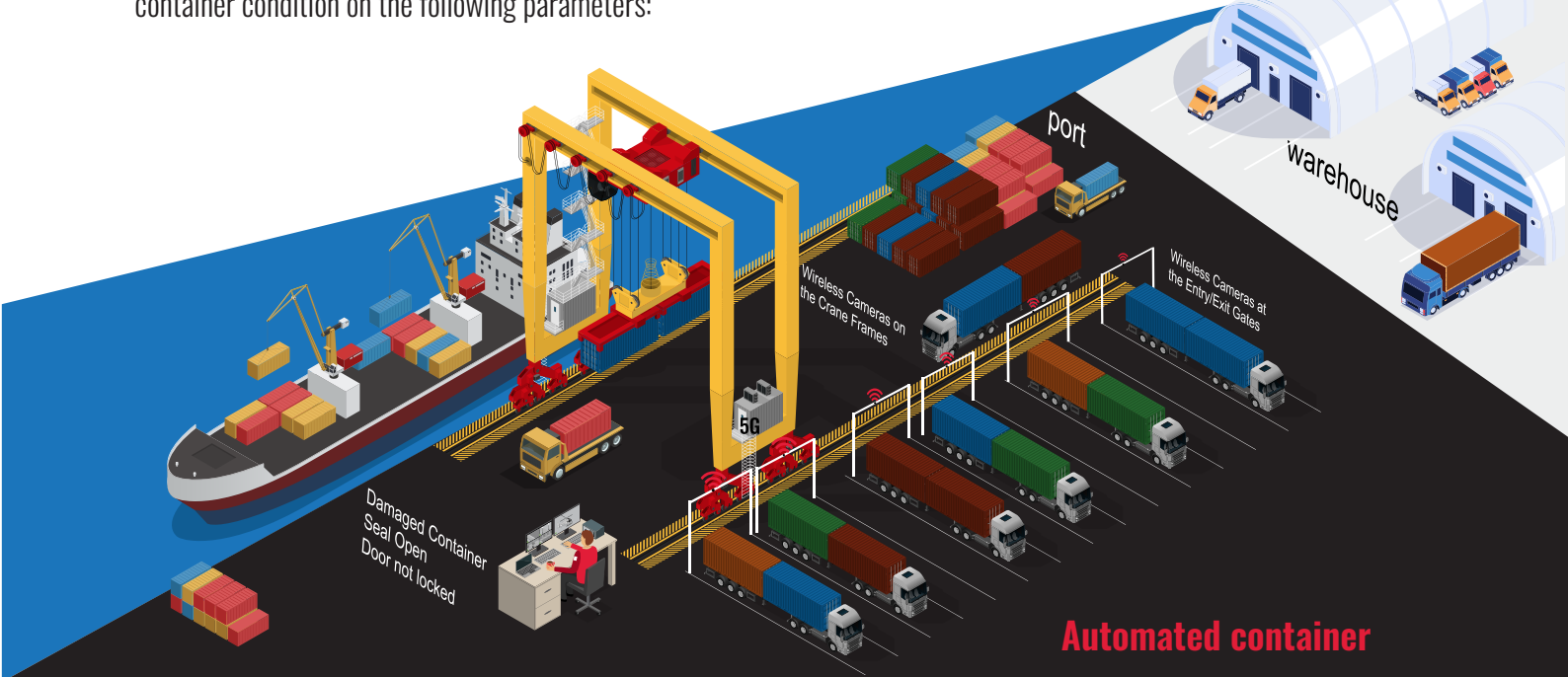
Tech Mahindra's ContainerSight, an AI-based video analytics solution deployed over cellular networks, helps logistics firms and port authorities generate real-time insight into container's condition at the time of entry and exit from their facilities, eliminating false claims and avoiding reputation loss.

The Challenge

Currently, the arriving containers are inspected manually to check for damage or open door seals. The process is time-consuming and prone to error and dispute [for lack of incontrovertible evidence]. Claiming insurance becomes difficult as damage or pilferage responsibility is hard to establish. Moreover, the movement of container-handling equipment throughout the yard would require seamless network coverage while ensuring no breaks/disruption to generate real-time insight for the operators. These challenges result in a sub-optimal experience, with handlers even running the risk of losing business.

The Solution

Multiple cameras are installed at entry and exit points to capture and record data on container conditions. ContainerSight solution then analyses these live video streams running over analytical algorithms to furnish **proof of container condition** during entry and exit points in the facility. The data is analyzed in real-time via an application hosted over on-prem edge server. The solution assesses and reports the container condition on the following parameters:



Cameras at entry and exit gates	All data (Number, Damage, - Door/Seal Status, Hazmat Logo) details captured & recorded	Captured data analysed in real	Use analytics data to improve efficiency
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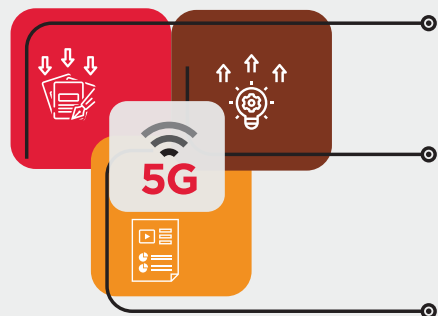
Automated container

- Number plate identification
- Container door status
- Container seal status
- Container damage identification
- Hazmat logo indication
- Logs all container condition status

The solution output can be integrated with on-premise systems such as Terminal Operating System (TOS) and even ERP.

The Benefits

By capturing real-time container condition at entry and exit points over cellular network, ContainerSight solution helps:



- Reduce false claims for insurance
- Early detection of damage improves operational performance of port/warehouse systems.
- Real-time identification of damage helps mitigate the risk of man-hour loss due to traceability issues later.

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www.techmahindra.com



connect@techmahindra.com



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