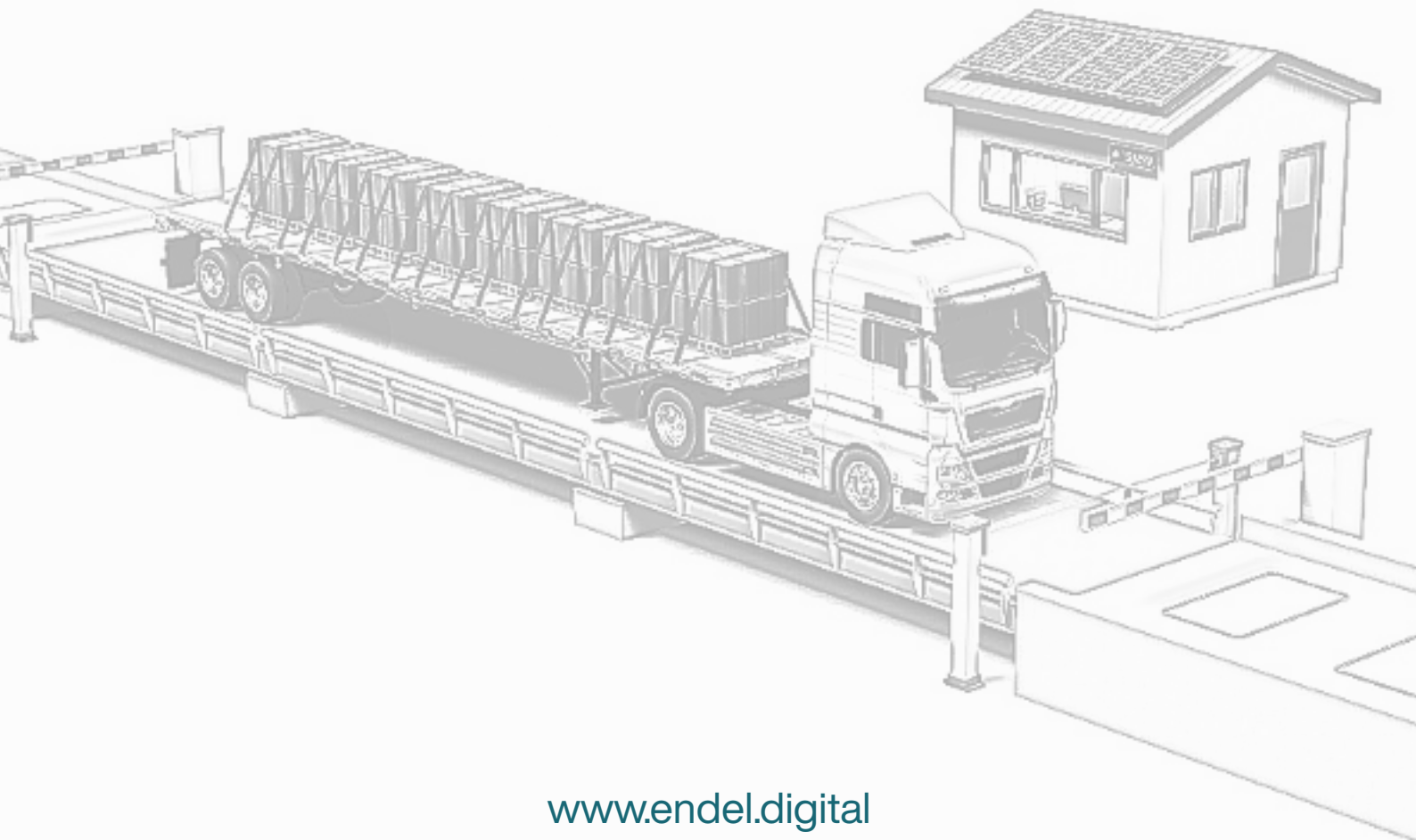




ENDEL
DIGITAL

How to **prevent theft** at your weighbridge?



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From our years of experience and working with clients across numerous industries, it we have gained a deep understanding of the problems that our clients have regularly faced, in terms of theft. **Traditional weighbridge systems allow certain weighbridge malpractices to go unnoticed.** One of the biggest malpractices that causes huge losses to any organization is theft. The amount of weighment thefts occurring globally, have significantly risen over the years and this as become a major concern for all companies that utilize weighbridges at their facilities, big and small organizations are falling victim to these malpractices which result in huge losses.

There are many other ways in which a weighbridge can be cheated, and theft may occur, we will be highlighting some of these ways and how WeighMAST solves these problems, and reduces the chance of theft.

CASE STUDY

A routine vigilance inspection brought to light the massive weighment theft that was taking place at Central Coal Fields in Darbhanga House, Ranchi. The weighbridge operator and the truck driver would manipulate the tare weight data by turning off the CCTV, and placing dummy weight instead of the actual truck. As per the vigilance inspector, such an occurrence had happened numerous times, which has far reaching effects. Their solution to prevent this from happening further was,

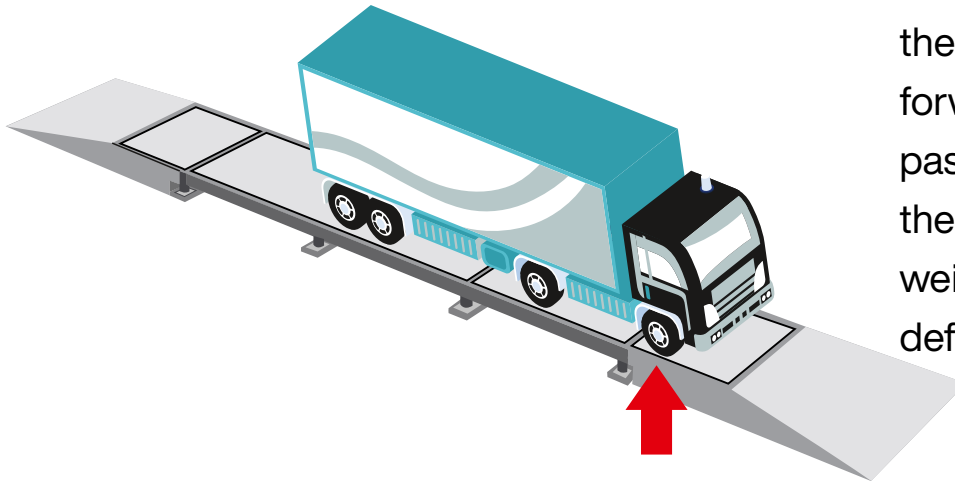
Their solution to prevent this from

- happening further was, to ensure the CCTV Camera is operational at all times,*
- to ensure that the tare weight and gross is captured for every passing truck,*
- to ensure the RFID Reader captures all the number plate data,*
- for periodic checks done by the officer*

PROBLEM 1: Wrong positioning of the truck

This enables the truck driver to show an increased weight of the truck. There could be 2 kinds of possibilities in this case.

Wrong position of the truck, where full weight of the truck is not on the weighbridge loadcells, to show lesser weight.

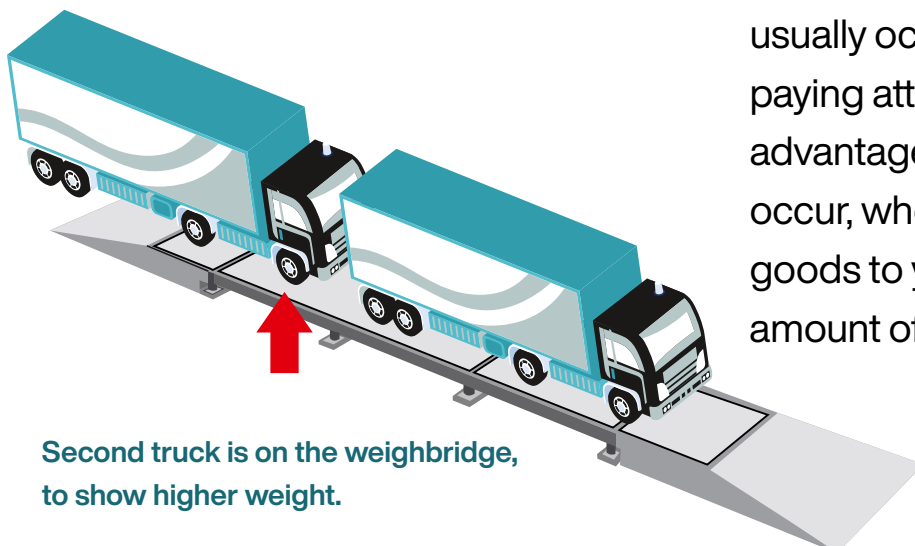


1. At a weigh station, a truck would drive onto the scale in which either the driver would pull far enough forward so that the front axles are past the scale which would make the operator believe that the weight is low but actually it is definitely not low or the driver

would not let the back axles of the truck come on to the scale which would again provide a weigh reading which is low and the operator would believe its low. This usually occurs when the operator is paying attention and the truck driver takes full advantage of that or if the driver is purchasing your goods and wants to weigh light so that they could steal the material.

2. Another possibility could be the truck driver wants to show a higher weight. So, truck driver would let all the axles onto the scale which would give the exact weight of the truck, however the truck next in line will pull his front axles onto the scales which would provide a high weight and again the operator would believe that the

weight is incorrect, this would again usually occur when the operator isn't paying attention and the driver takes full advantage of that. Such a situation may occur, when the truck driver is delivering goods to you, but you received a lesser amount of goods, than what was decided.

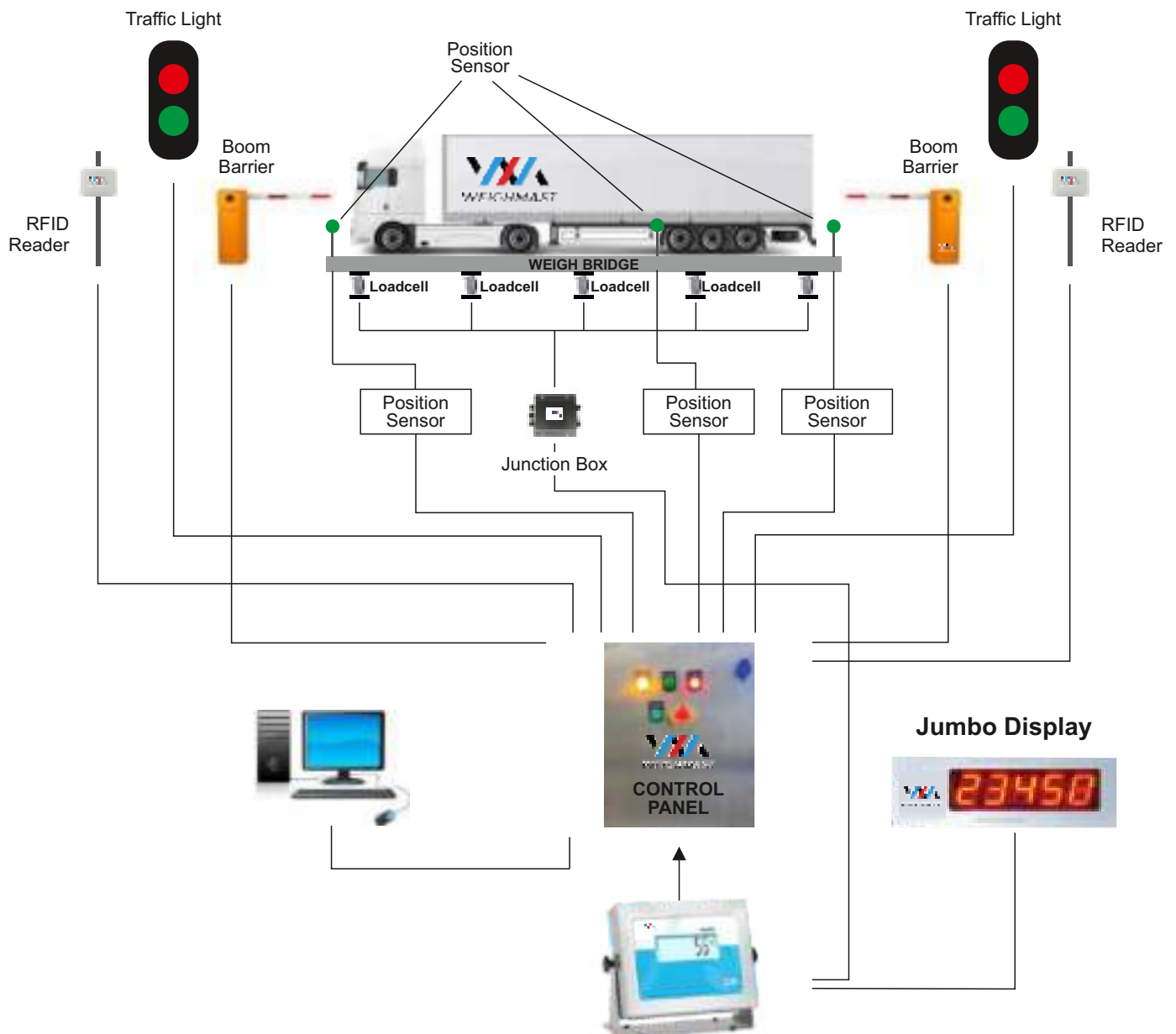


Second truck is on the weighbridge, to show higher weight.

SOLUTION

Integration of specialized hardware

If these accessories work perfectly together then this would prevent theft at the scale. Gates are used to prevent more than one truck to come onto the scale and this would provide accurate weighing reading of the truck without any malpractices occurring. The position sensor ensures that the truck is at the position, where the most accurate weighing can be taken. If any malpractice is conducted then or improper positioning of truck, the CCTV will detect this cheat and capture the license plate of the truck. The integration of these hardware along with our software will not allow any kind of malpractices to be conducted and the truck driver will not attempt to conduct it.



Endel digital's system can be integrated with a variety of hardware to boost the overall safety and security, and reduce the chances of inaccuracies in weighing.

PROBLEM 2:

Truck driver led theft

This kind of cheat usually happens to those businesses in which their trucks run the same route all day.

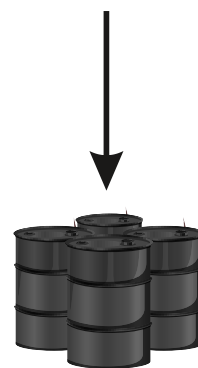
For example, If a company has two sites operating, Site X and Site Y, and the material is being sent from site X to Y. The truck driver would pick up 1Ton of material from site x, then stops midway and attempts to steal 200kgs of the material, then goes to Site Y and states that only 800kg of material has been sent. The company would be losing material, and making losses, without realizing.

Picking up material from the manufacturing facility



Weigh in
1,000 kg

1. Fill at quarry



2. Put away 200kg material
at a secret location

Weigh in
800 kg

3. Only 800kg delivered on the
location, difference is not detected.

Dropping off material to
the head office.



SOLUTION

Clear data visibility

WeighMAST software allows for multi-weighbridge integration, on the same software. All of the weighment data recorded across all sites, is uploaded on the cloud, thus allowing visibility of live data. Thus, when the weight of the truck is captured at Site X, at the same time, Site Y would be able to see the weight and compare it to the weight that is recorded when the truck reaches site Y. If there is any discrepancy amongst the data, the operator or inspector would be able to scrutinize the situation.

PROBLEM 3:

Altering of data

This is the most common and easiest method to cheat the system, in which the operator would alter the weighment data being recorded in the system, and alter the weighment tickets for the truck drivers. In such a situation, the truck driver and the operator may work together, to steal the material.



SOLUTION

Automated data capturing

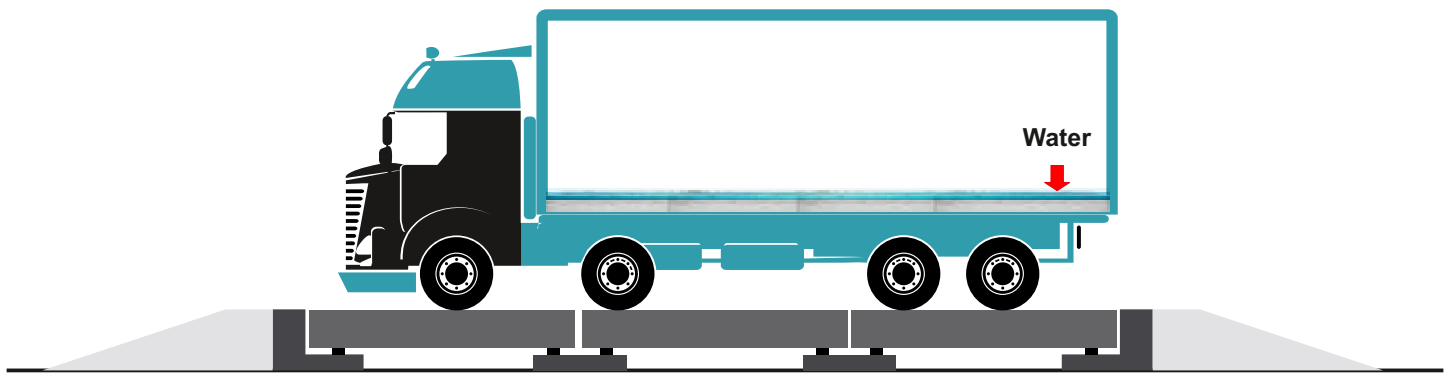
As long as the weighment data is being captured and entered into the system manually, by the operator, it is difficult to stop them from altering the data or committing malpractices. To tackle this problem, WeighMAST has designed a fully automated system, where the weighment data is automatically captured, and

stored in the system, which cannot be edited or altered in any way. As soon as the weight is captured, all the data is stored on a cloud, where the data cannot be changed. Making it near impossible for the operator to manually change any entries.

PROBLEM 4:

Recording inaccurate tare weight

This kind of cheat is also quite common at site, in essence, a driver will arrive with a seemingly empty truck, which is actually carrying gallons of water, thus showing the tare weight to be much higher than what is actually there. After completing the weighment, he would dump the gallons of water, load the goods, and the gross weight would show an inaccurate figure, as the tare weight was inaccurate.



The water is filled under a false bottom on the truck, making it difficult to notice when the truck is being inspected, and it shows a higher tare weight than the actual weight.

SOLUTION

Smart tare weight reading

Endel Digital has created a smart tare weight reading system, where the system studies the previous tare weights recorded of the particular model of the truck, and compares the same for variance, if there is a large percentage of variance, the system would be alerted and the truck can then be inspected by the relevant personnel. For example, if a Mercedes Benz Actros truck has entered the premises multiple times, and it recorded a tare weight in the range of roughly 1Ton, if the same model truck records a tare weight of 1.5Ton, then the system would be alerted. This would reduce the chances of any truck driver attempting to tamper with the tare weight recording.



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