

Øresund Bridge Toll Gate



Øresund bridge connects Sweden and Denmark

Total length of **16km** includes the bridge,
a tunnel and an artificial island

Serving up to **7,500,000 vehicles a year**
27,000 vehicles a day



Bridge toll gate system
was designed by Vector Software
for Carus and Kapsch companies



carus

Mariehamn, Finland

kapsch >>>

Vienna, Austria



Toll System is not just a toll booth



Data gathering begins 150m before the toll gate

Vehicle type is detected using the AI system

License plates are read and recognized

If a valid contract exists in the database, and there is enough money on the account, the barrier is opened beforehand so the vehicle does not even need to slow down

If not -- it stops at the toll booth



The real-time POS system requires payments to be accepted quickly, conveniently and reliably



Stability

as the system serves up to 27,000 vehicles a day, any bug could result in a huge traffic jam

Tech Performance

the payment system accepts bank cards, fuel cards, iTICKET and cash -- and each payment is processed in real time

Speed

vehicle type and tariff are identified beforehand and the system is ready to accept payment when driver stops at the booth

Simplicity

it is crucial for the interface to be simple and intuitive so driver could quickly understand how to pay to avoid delays

Weather-proof

displays are readable under the bright sun and the whole system operates under harsh Nordic conditions



Technical solution



WCF
WPF



Integrations



We get vehicle data from the traffic management system, charge the driver using a bunch of methods, send signal back to open the barrier, and save the transaction to the ERP system for accounting purposes



license plate
recognition system



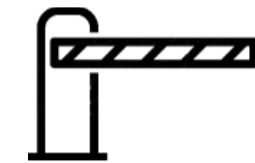
payment card
validation system



Microsoft
Dynamics



accounting
ERP module



traffic
management
system



bank card
payment terminal



cash payment
machine



barcode scanner



POS printer



customer
assistance
intercom

Driver's experience



System implementation results and effects



Higher customer satisfaction

as a result of faster barrier pass times

Higher precision

Tariff is determined automatically based on the actual vehicle measurement

Higher security

Integration with cash machines helps to avoid fraud

Higher system availability

7,454,231 vehicles crossed the bridge in 2019

Less tech maintenance

Reliable automated system requires less personnel to operate it

Less customer support efforts

Easier to use system gets less customer assistance requests

Book an intro call today to tell us about your project and hear more about our capabilities



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Let's build something amazing!



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