

ADAPTIVE **RECOGNITION** PORT SYSTEMS

SUBSYSTEM 04 · CHECK-IN

Adaptive Check-In Gate Plate and travel document, one identity record.

Every vehicle and every travel document read at the check-in lane, tied together into one identity record, and handed to your check-in system before the driver reaches the window.

NO AGENT ON THE LINE. NO CLIPBOARD. NO PAPER.



SCAN TO SEE
IT ONLINE



UNDER 1 S

Plate posted to your check-in system

NFC AND MRZ

Travel document read and authenticated

35 S TYPICAL

Pull-up to release, end to end

ONE RECORD

Plate, document, lane and images in GDS

01 · OVERVIEW

Take staff off the boarding lane. Keep them where it matters.

At a manual check-in booth, a person reads the plate, types it, checks the passport and looks up the booking. The Adaptive Check-In Gate removes the reading and typing. Your check-in system keeps the decision.

The problem at the booth

- **Reading and typing take time.** Every plate and document keyed by hand slows the lane at peak departures.
- **Document checks are the slowest step.** And EES and ETIAS add checks for non-EU travellers.
- **Staff check every vehicle.** Even though only a handful of cases need a human.

What the gate does

- **Reads the plate on arrival.** Einar cameras post it to your check-in system in under a second.
- **Reads the travel document.** The Osmond Advanced Passport Reader captures the NFC chip and MRZ and authenticates the document.
- **Hands over one record.** Plate, document, lane and images, stored in the Globessey Data Server (GDS) and exposed through documented APIs.

Under 1 sPLATE POSTED TO YOUR
CHECK-IN SYSTEM**35 s**TYPICAL PULL-UP TO
RELEASE, END TO END**2**READS PER VEHICLE:
PLATE AND DOCUMENT**1**IDENTITY RECORD PER
VEHICLE

Best results measured at reference deployments. Actual performance depends on port layout, traffic mix, lane design and the integration on the port's side.

WHO IT IS FOR

01

Ferry boarding

Plate and document read the moment the car pulls up, so your booking system can clear it, route it and update the manifest before the ramp.

02

Ro-Ro freight gates

Every incoming truck identified at the gate, so your booking system can match the cargo, route the rig and clear hazmat in one pass.

03

Restricted port access

Reliable identification for restricted zones, crew-only lanes and bonded areas. Your access rules run on the record.

What it changes for operators

- The booking is on screen before the driver lowers the window
- Staff handle exceptions, not every vehicle
- A time-stamped record with image evidence for every check-in

Built on 35+ years of ANPR

Adaptive Recognition has built number plate and document recognition since 1991. The Adaptive Check-In Gate is one of six Adaptive Port Systems subsystems that share one data layer, the Globessey Data Server.

02 · CAPABILITIES

Four things happen at the lane, all of them recognition.

The kiosk, the barrier and the sign belong to your integrator. What we remove is the part that needs a person to read, type and check.

01

Plate identification

Einar cameras read the plate as the vehicle pulls up and post it to your check-in system in under a second. The booking is on screen before the driver speaks.

02

Travel document reading

The Osmond Advanced Passport Reader captures the NFC chip and MRZ at the lane and authenticates the document. The slowest part of a manual check-in, done in seconds.

03

One identity record

Plate, document and lane bound into one time-stamped record with image evidence, stored in GDS and exposed through documented APIs.

04

Exceptions made visible

Low-confidence reads, unreadable documents and mismatches are flagged with their evidence, so staff handle only the cases that need a human.

AT THE LANE



FIGURE 1 The plate is read as the truck pulls up and posted to the check-in system.



FIGURE 2 The port's check-in system clears the booking. Its sign shows the lane and its barrier opens.

The decision stays with you. We identify the vehicle and read the document, and hand that record over. The booking check, the lane decision and the barrier command belong to your check-in system. No validation runs on the camera or inside the Globessey Data Server.

03 · HOW IT WORKS

Identify, confirm, assign, settle.

Typically 35 seconds end to end.

The gate supplies the recognition half of the transaction: plate and travel document. Your check-in system supplies the decision.

01**Identify**

Einar cameras read the plate as the vehicle arrives at the kiosk. The read goes straight to your check-in system.

02**Confirm**

The driver confirms the passenger count at the kiosk and presents travel documents to the Osmond reader, which captures and authenticates them.

03**Assign**

Your check-in system matches the record to the booking and decides. Its LEDs show the deck assignment and its barrier opens.

04**Settle**

The record is stored in GDS. Your ticketing system settles the transaction and updates the manifest.

LANE ANATOMY · TOP VIEW

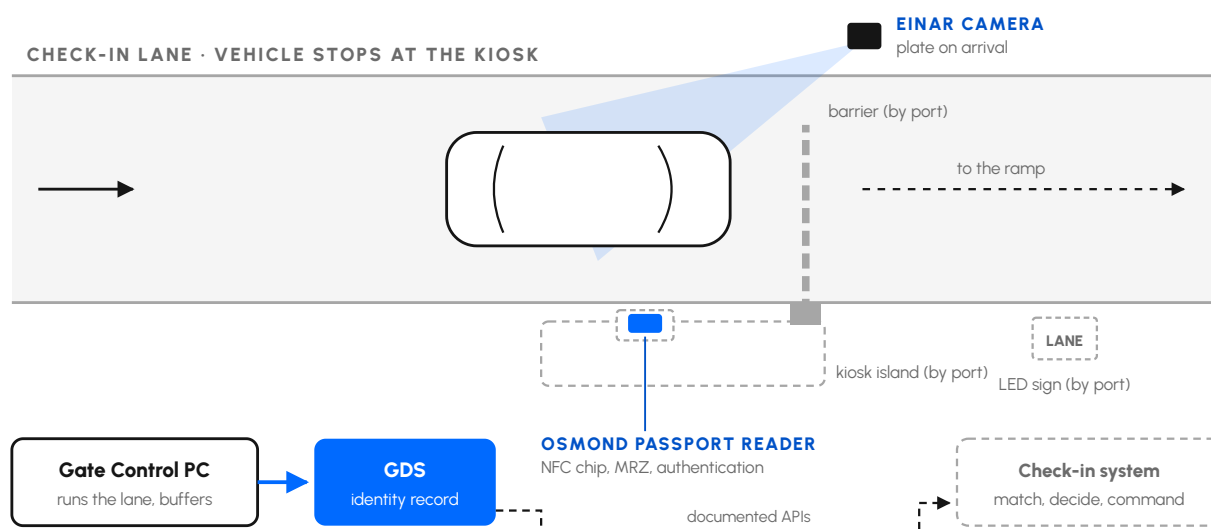


FIGURE 3 Check-in lane: the Einar camera reads the plate and the Osmond reader reads the document. The Gate Control PC sends the record to GDS. Blue: Adaptive Recognition supply. Dashed grey: provided by the port or its integrator.

WHERE IT IS USED

Passenger car lanes

Plate and passports read at the kiosk. The driver confirms the passenger count on the port's kiosk screen.

Freight lanes

Every truck identified at the Ro-Ro gate. The booking system matches the cargo and routes the rig.

Restricted lanes

Crew-only lanes and bonded areas. Your whitelist runs on the record. Exceptions go to the harbour master.

04 · THE RECORD

What we hand your check-in system, and nothing more.

One identity record per vehicle, with its evidence. The booking match, the fare, the lane decision and the barrier stay in your systems. This is the input they were missing.

One illustrative event

LANE IMAGE	Attached to the event
NUMBER PLATE	NL AL-EX-71
TRAVEL DOCUMENT	MRZ and NFC captured at the lane by Osmond
DOCUMENT CHECK	Authenticated, chip signature verified
LANE AND EVENT ID	Lane 4, terminal 2, event 1180
DATE AND TIME	2026-08-18 13:48:27

Values shown are one illustrative event. No booking, fare or entitlement is evaluated here. That decision belongs to your check-in system.

In the record

- Plate, document data and document check
- Lane, event ID and timestamp
- Image evidence
- Flags for low-confidence reads and mismatches

In your systems

- Matching the record to the booking
- Fare, entitlement and lane decision
- Barrier and sign commands
- Settlement and manifest update

WHERE IT SITS IN THE TERMINAL

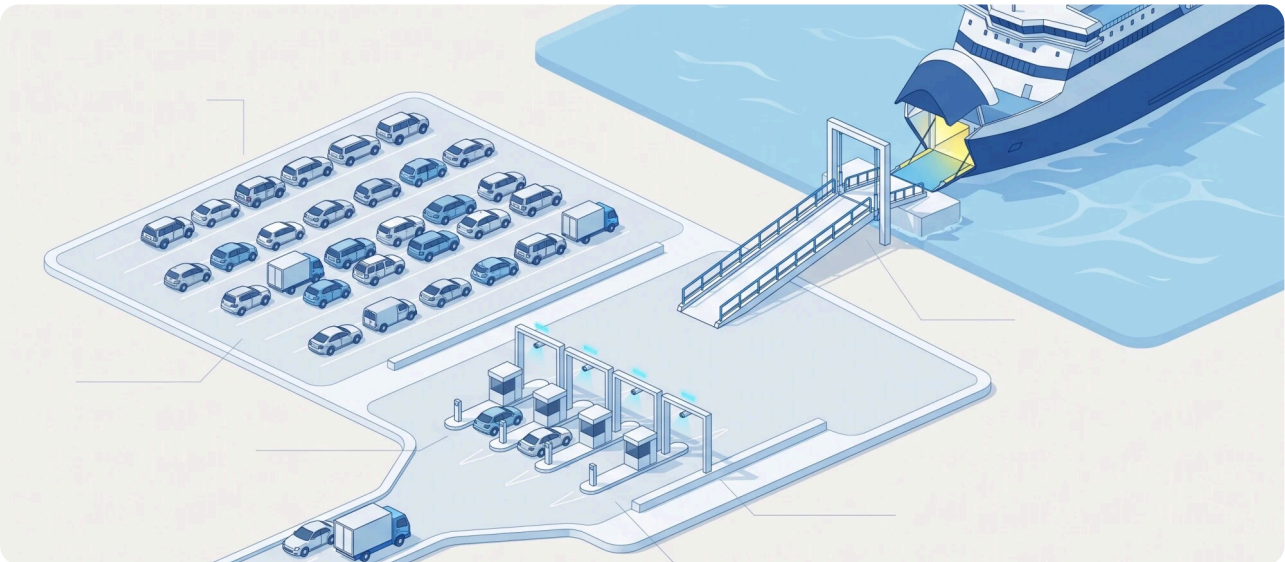


FIGURE 4 The check-in lanes sit between the approach road and the marshalling lanes. The same GDS record follows the vehicle to the ramp.

05 · BORDER-READY · EES AND ETIAS

Read the travel document at the lane.

As EES and ETIAS add checks for non-EU travellers, the data side of every crossing can slow the gate. The Osmond Advanced Passport Reader captures and validates the document at the kiosk, and the same GDS platform stores it.



FIGURE 5 Osmond Advanced Passport Reader.

- **Reads and authenticates.** Osmond reads the passport NFC chip and the machine-readable zone (MRZ), and authenticates the document.
- **Linked to the vehicle.** EES and ETIAS-ready document capture, linked to the vehicle and booking through ANPR.
- **GDPR by design.** The record flows into GDS with data minimisation, retention rules and an audit trail.

What stays with the border authority. The mandated live biometric capture (face and fingerprints) and the immigration decision remain with Border Force and the EES kiosks. Osmond handles the document and the data, so everything around them moves faster.

DATA AND SECURITY

On-premise

GDS runs on your own hardware by default. The identity record stays on your site.

Documented APIs

Your check-in, ticketing and border systems read the record through documented APIs and SDKs.

Security posture

The platform's security posture is aligned with NIS2, GDPR and ISO.

06 · HARDWARE

Four units, and the platform under them.

This is the whole of our delivery at a check-in lane. Everything the driver touches, the kiosk, the sign and the barrier, comes from your integrator and connects to these.

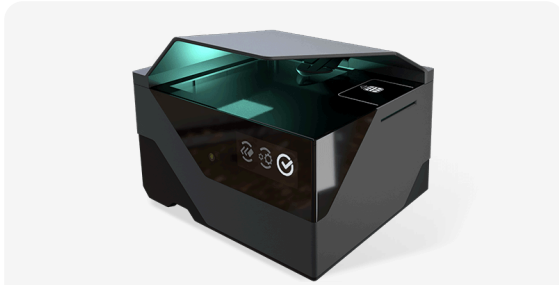


AT THE LANE

Einar camera

Reads the plate at the check-in lane and posts it to the port system the moment the vehicle pulls up.

Role	Plate identification
Output	Plate read in under 1 s



AT THE KIOSK

Osmond Advanced Passport Reader

Captures the NFC chip and MRZ and authenticates the travel document. The EES-ready half of the check-in.

Reads	NFC chip, MRZ
Checks	Document authentication



PER LANE

Gate Control PC

Industrial fanless PC that runs the lane, buffers locally if the network drops, and speaks to your systems over documented APIs.

Role	Runs the lane
Resilience	Local buffering



OPTIONAL

Globessey Data Server

Stores the identity record with its image evidence, on your own hardware, and serves it to whatever needs it. The data layer under all six subsystems.

Hosting	On-premise by default
Access	Documented APIs and SDKs

07 · SCOPE OF SUPPLY

What we deliver, and what stays yours.

We supply the recognition layer: the cameras, the readers, the engines that turn a vehicle into a record, and the data platform underneath. The lane itself is procured and installed by you or your integrator.

Delivered by Adaptive Recognition

- Einar cameras reading the plate at the lane
- Osmond Advanced Passport Reader for the travel document
- The industrial gate control PC
- Globessey Data Server, on your own hardware (optional)
- Commissioning, fine-tuning and lifecycle support under one SLA through ARGS

Provided by the port or its integrator

- Self-service kiosks and the software running on them
- LED displays and driver signage
- Barriers and traffic lamps
- Electrical cabinet, power supply, cabling and network
- The check-in logic: matching a read to a booking, clearing it and commanding the barrier

Integration is scoped with you. Wiring the identity record into your check-in system is an integration we scope together. Every port asks for it differently.

COMMON QUESTIONS

Does the camera decide who boards?

No. We supply the identity record. Your check-in system matches it to the booking, makes the call and drives the barrier. No validation runs on the camera or in GDS.

What happens with a poor read?

Low-confidence reads, unreadable documents and mismatches are flagged with their evidence for a supervisor. Staff handle those cases, not every vehicle.

Does it capture faces or fingerprints for EES?

No. Osmond reads and authenticates the document. Live biometric capture and the immigration decision stay with the border authority and the EES kiosks.

Can we keep our kiosks and barriers?

The kiosk, sign and barrier come from your integrator and connect to our units. In the consultation we review your existing kiosk and barrier equipment with you.

GET IN TOUCH

See the Adaptive Check-In Gate at your check-in lanes.

Book a 30-minute consultation. We review your booking system, lane geometry and existing kiosk and barrier equipment, and show you what a rollout looks like at your terminal.

WHAT TO HAVE READY

Traffic volumes

Peak and off-peak vehicle counts, freight and passenger mix, peak hours.

Site layout

Number of lanes, gate locations, distances between checkpoints, network access.

Existing systems

Booking, ticketing, customs and traffic-management platforms in use.

Your goals

Speed, accuracy, compliance, cost, or all of them.

WHO YOU WILL TALK TO



Péter Tomolák

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Your first point of contact. Péter works with ferry terminals, Ro-Ro ports and integrators across Europe to find where automation pays back fastest.

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This subsystem online

Capabilities, the 13-second demo and the full scope.

adaptiveportsystems.com/lanes/boarding



Book a consultation

We respond within one business day.

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