CBITD

E-Ticketing at Casco Bay Lines

Framing a path forward

Board discussion

Why this conversation, today

Casco Bay Lines has explored “E Ticketing” solutions for over a decade. None of them, including three new providers staff met with last fall, offered an obvious, low-risk solution that meet CBL’s unique needs. The one that appeared most promising had its largest public ferry contract terminated in March.

Before we move further, I want to align with the board on what we mean by e-ticketing, share what peer agencies have learned the hard way, and strategize what a responsible path forward looks like for CBITD..

Today's goals

1 **Get specific about what we mean**

Define what we are actually asking for before we ask anyone to build it.

2 **Understand why this is hard**

Peer ferry systems have spent millions and still do not have working systems.

3 **Agree on a path forward**

A framework we can defend, not a product we have to sell.

"E-ticketing" is not one thing

When board members, staff, or riders say "e-ticketing,"
they often mean very different things.

E-ticketing is a family of related capabilities, not a single product. Each capability can be built, bought, or deferred independently. Some cost tens of thousands of dollars. Others cost millions.

Some change nothing about how we board the vessel. Others require us to rebuild our boarding workflow, install new hardware at the terminal, and retrain crew member.

Figuring out which ones we actually want is the most important decision we can make before we start.

The question we have to answer first

"What problem are we actually trying to solve?"

Depending on the answer, we might build one thing, or five, or none of the below.

Tier 1 vs Tier 2: what "simple" actually means

The board may picture Tier 1. The features that matter most to CBL's riders may live in Tier 2.

TIER 1: The single-use ticket model

Buy a ticket, scan a code, throw it away.

The system has no record of who bought the ticket. Every purchase is a fresh transaction. The next time the same passenger rides, they are a stranger to the system again.

WHAT THIS SOLVES FOR CBL

- Tourists, day-trippers, or infrequent users buy ahead, skip the ticket window
- No more lost paper stubs

WHAT IT DOES NOT SOLVE

Anything to do with passes, half-fare verification, account management & history, or fare capping capability. Tier 1 is great for the rider who comes once. It does not unlock any real value for those who use the system regularly.

TIER 2: The account-based model

Each rider has an account. The system remembers them.

Riders create an account, save a payment method, and the system tracks what they buy and when. The same person walking up to the gangway today and a year from now is recognized as the same customer. Validation occurs by taping credit card, phone, RFID tag, or some other smart device linked to rider's account.

WHAT THIS UNLOCKS FOR CBL

✓ **Auto-renewing passes**
30-day, 90-day, and annual passes renew automatically before they expire.

✓ **Automatic pass conversion capable***
A frequent rider buying single tickets is automatically converted to a pass when they hit the threshold.

✓ **Integration with Accounting and Reporting**
System must be able to "talk" with Munis and have detailed reporting functionality.

✓ **Purchase history**
Riders see what they've bought, dispute charges, update information, etc.

**Would require separate board approval and PUC acceptance.*

The e-ticketing spectrum

When someone says "e-ticketing," they could mean any tier below. Each is a different project, with different costs, and different capabilities.

1 Basic digital ticketing

Buy online, carry the ticket on your phone, board with visual validation.

Small ferry operators (Fire Island Ferries), small bus and transit agencies.

APPROXIMATE INVESTMENT

$50K–$500K

typically a SaaS subscription

2 Customer accounts and pass management

Tier 1 plus customer accounts, online pass renewal, purchase history, self-service kiosks.

NY Waterway, NYC Ferry, Steamship Authority (when their new system launches).

APPROXIMATE INVESTMENT

$500K–$5M

depending on platform vs bespoke

3 Account-based with loyalty and fare capping

Tier 2 plus customer profiles, volume-based discounts, loyalty rewards, automatic fare capping.

Boston CharlieCard, Chicago Ventra, airlines (Delta SkyMiles, United MileagePlus).

APPROXIMATE INVESTMENT

$10M–$30M*

typically bespoke or heavily customized

4 Open-loop contactless and integrated MaaS

Tier 3 plus tap any card or phone at a reader, multi-modal integration, dynamic pricing.

London TfL (Oyster + contactless), NYC OMNY, major European rail networks.

APPROXIMATE INVESTMENT

$30M–$500M+

always bespoke at this scale

**Capital costs only. Full program value including 10+ years of operations runs significantly higher. CharlieCard (MBTA) is a ~$926M program through 2031; Ventra (Chicago) began at a $454M contract.*

Lower ends of each range assume modern off-the-shelf SaaS platforms. Bespoke builds cost substantially more. Ranges are rough industry estimates.

Where we are today

Paper tickets are not the problem. They are the performance standard any new system has to meet.

300-400

passengers boarded in a typical peak turnaround

~8 min

boarding window at Peaks and Portland
8 X 60s = 480 s
1.2 s per ticket
2 crew members = 2.4 s per ticket

~1000

active annual passholders, plus 30-day and 90-day passes

20+

daily trips a pass must be validated against in season

What paper does well

Visual validation on the gangway is nearly instantaneous. No device dependency, no connectivity dependency, no battery dependency. Our crews can move a full vessel in a narrow window because the friction per passenger is effectively zero.

Any replacement has to meet this bar. Not approach it. Meet it.

The Sea Dogs comparison is not quite right

Sports venues are a common reference, but our operating reality is different in four ways.

A Sea Dogs game at Hadlock Field

One event

One date, one time, one ticket.

60 minute arrival window

Fans filter in gradually.

Six or more scanners

Parallel gates, staffed specifically for entry.

Single-use ticket

Validated once and done.

A Casco Bay Lines boarding

20+ trips, every day

One pass valid across multiple vessels with a 60-day validity (in season).

15 minute turnaround

A compressed boarding followed by immediate departure.

One or two crew

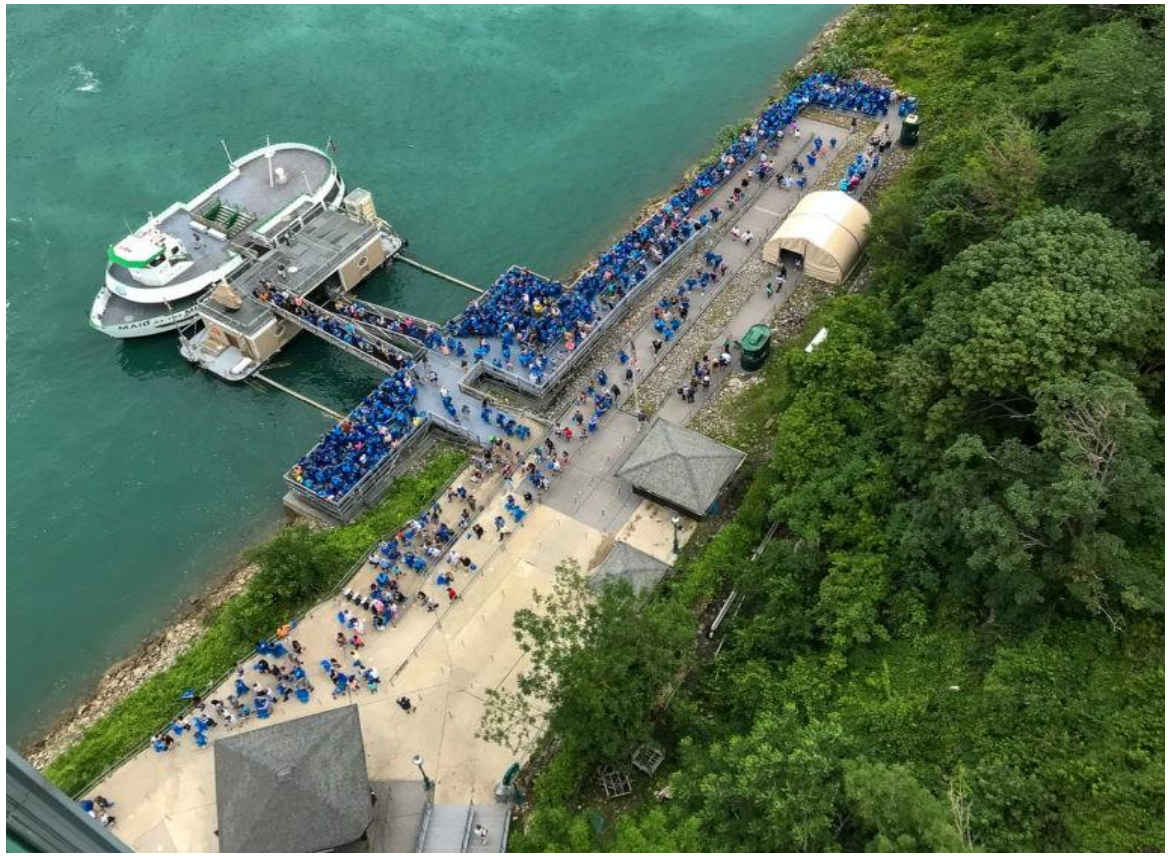
On a narrow gangway.

Multi-use passes

Must check validity, not just authenticity.

There is no staging area

Most fast-throughput passenger systems validate before riders reach the vessel. We don't have that option.



Tickets are scanned before passengers walk down to the dock. By the time the boat arrives, the staging area is full of pre-validated riders ready to board fast.

AT THE MAINE STATE PIER

There is no fare-controlled space.

The pier is open public space. There is no turnstile, no fenced waiting area, and no room to build one.

- 300–400 passengers arrive in the 15 minutes before departure
- They walk up from cars, taxis, sidewalks, and adjacent buildings
- Validation happens at the gangway, in real time, by one or two crew
- The vessel cannot leave until everyone has been validated

This is a permanent infrastructure constraint. Any e-ticketing system we deploy has to be designed around it, not in spite of it.

Case study: Washington State Ferries

Largest ferry system in the United States. Project terminated last month after roughly three years.

What happened

WSF hired a specialized ferry ticketing vendor in 2024 to modernize ticketing and vehicle reservations. Contract was terminated in March 2026.

An independent review cited:

- Rushed procurement that prioritized low cost over vendor capability
- A project charter approved only after a vendor was already selected
- Key roles left unfilled or filled too late
- No meaningful user testing with riders or staff
- Unrealistic schedule driven by wishful thinking

By the numbers

~$22M — total project budget reported

~$3M — already spent with little deployable work

3+ years — elapsed, still no working system

Late 2027 — earliest possible first-route launch now

Takeaway: specialized ferry vendors with good references can still produce failed projects. The contract is not the control.

Case study: Steamship Authority

A larger regional peer. Spent millions on a website that is still not live.

What happened

Starting in 2022, SSA spent two years redesigning the public-facing website while leaving the back-end reservation system untouched. That reservation system, built in 1996, is still maintained by a single retired contractor in Wisconsin.

In December 2025, the Massachusetts Inspector General found:

- Between $2M and $4M-plus wasted before the project was shelved
- No functional product delivered after two years of work
- Board "exercised virtually no meaningful oversight“

- Read the report **here**.

By the numbers

$2M-$4M+ public funds wasted on the website

Zero functional product delivered in 2+ years

Takeaway: SSA is ten times our size and identified the problem correctly in 2018. They still got it wrong. Scale does not prevent failure. Governance does.

Choosing the features that matter to CBL

What features do you expect an "e ticketing" system to have. This list is not all-inclusive, just a conversation starter:

BUYING AND BOARDING

- [x] Buy single tickets online
- [ ] Buy passes online (30-day, 90-day, annual)
- [ ] Apple Wallet / Google Wallet integration
- [ ] Multiple payment methods (card, Apple Pay, etc.)
- [ ] Show phone at gangway (visual validation)
- [ ] QR code scanning option
- [ ] Offline ticket display (works without signal)

PERSONAL ACCOUNTS

- [ ] Personal accounts (login, history, payment on file)
- [ ] Auto-renewing passes
- [ ] Automatic pass conversion (frequent buyer threshold)
- [ ] Half-fare verification on file (senior, disabled)
- [ ] Online Peaks Residential Boarding Pass application
- [ ] Self-service refunds and dispute handling
- [ ] Remedies in place for lost/dead phone or smart device

INFORMATION AND ALERTS

- [ ] Real-time vessel location and schedule
- [ ] Service alerts and push notifications
- [ ] Self-service kiosks at the terminal

OTHER FEATURES:

- [ ]
- [ ]
- [ ]

OFTEN REQUESTED, BUT WITH SIGNIFICANT COST IMPLICATIONS

- [ ] **Loyalty rewards program**
  Points, tiers, and rewards based on rider activity.
- [ ] **Tap-and-ride contactless boarding**
  Tap a card or phone at a reader instead of showing a ticket.

CLOSING

Keys to Success

“Define CBITD board priorities and expectations for this project”

-KPFF Marketing Literature

Discussion and questions