



## MEMORANDUM

TO: HIGH-PERFORMANCE TRANSPORTATION ENTERPRISE BOARD OF DIRECTORS  
FROM: KELLY BROWN, HPTE TOLLING OPERATIONS MANAGER  
DATE: JULY 14, 2021  
SUBJECT: BLISSWAY PHASE 1 PILOT UPDATE & REQUEST TO MOVE TO PHASE 2

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### Purpose and Requested Action

At the July 15, 2020 Board meeting, the Board approved a Memorandum of Understanding (MOU) between HPTE and Blissway, Inc. (Blissway) for Phase 1 of a multiple phase pilot with Blissway to test the Blissway Wireless Autonomous Lane Enforcement (WAL-E) roadside toll equipment technology, designed to enforce proper Express Lane usage via detection and recognition of license plate information and other vehicle identification such as make or color. This pilot, which began on August 3, 2020, was conducted on the I-70 Mountain Express Lane and is ongoing. Representatives from Blissway will present the Phase 1 findings of the pilot at this month's Board meeting and present ideas for the next phase of the pilot. Staff is requesting direction regarding advancing to Phase 2 of this multiple-phase pilot with Blissway.

The current pilot was deemed a success per the MOU because the following were achieved:

- The System achieved an industry-standard uptime.
- The System achieved a license plate reading accuracy of 99.5 percent or higher.

### Background

Blissway is the first company to offer tolling-as-a-service turnkey solutions, using cutting-edge artificial intelligence computer vision and machine learning and borrowing from state-of-the-art yield management practices in the airline industry. Blissway is developing software to maximize throughput and simultaneously optimize revenue 24/7 while automatic license plate reading cameras and vehicle occupancy verification technologies deliver near-perfect lane enforcement and occupancy validation.

### Board Options and Recommendations

1. Staff recommends that the Board direct staff to amend the MOU with Blissway to conduct the Phase 2 pilot to test their tolling-as-a-service turnkey solution.
2. Deny the request for moving into Phase 2 of the Blissway Pilot and allow the Phase 1 Blissway pilot to expire.

### Next Steps:

If the Board directs staff to enter into an MOU with Blissway to conduct the Phase 2 pilot:

1. Blissway will submit a statement of work for the Phase 2 pilot
2. Staff will draft an MOU between HPTE and Blissway for the Phase 2 pilot
3. Staff will present the MOU for approval at a future HPTE Board meeting

### Attachments

Attachment A: Blissway presentation

# Appendix A

## Blissway Presentation



BLISSWAY

# Agenda

1. I-70 Pilot Phase 1 – What is it?
2. Why does the tolling industry use overhead gantries & transponders?
3. I-70 Pilot Phase 1 – Live demonstration
4. Proposed Phase 2
5. Why Phase 2 could matter for HPTE?
6. Questions & Answers

# 1. I-70 Pilot Phase 1 – What is it?



# 1. I-70 Pilot Phase 1 – What is it?



2. Why does the tolling industry use overhead gantries & transponders?

VIDEO TOLLING HAS HISTORICALLY BEEN

EXPENSIVE

HIGH LEAKAGE

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VIDEO TOLLING HAS HISTORICALLY BEEN

~~EXPENSIVE~~

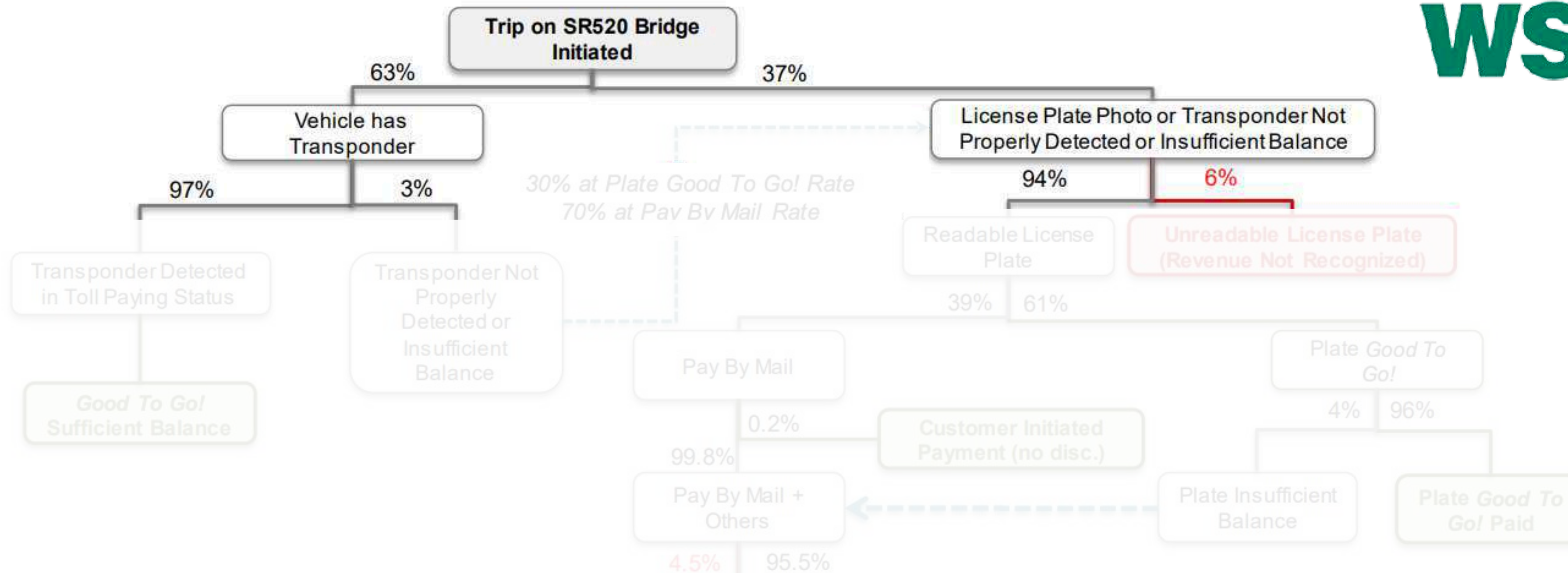
HIGH LEAKAGE



## 2. Why does the tolling industry use overhead gantries & transponders?



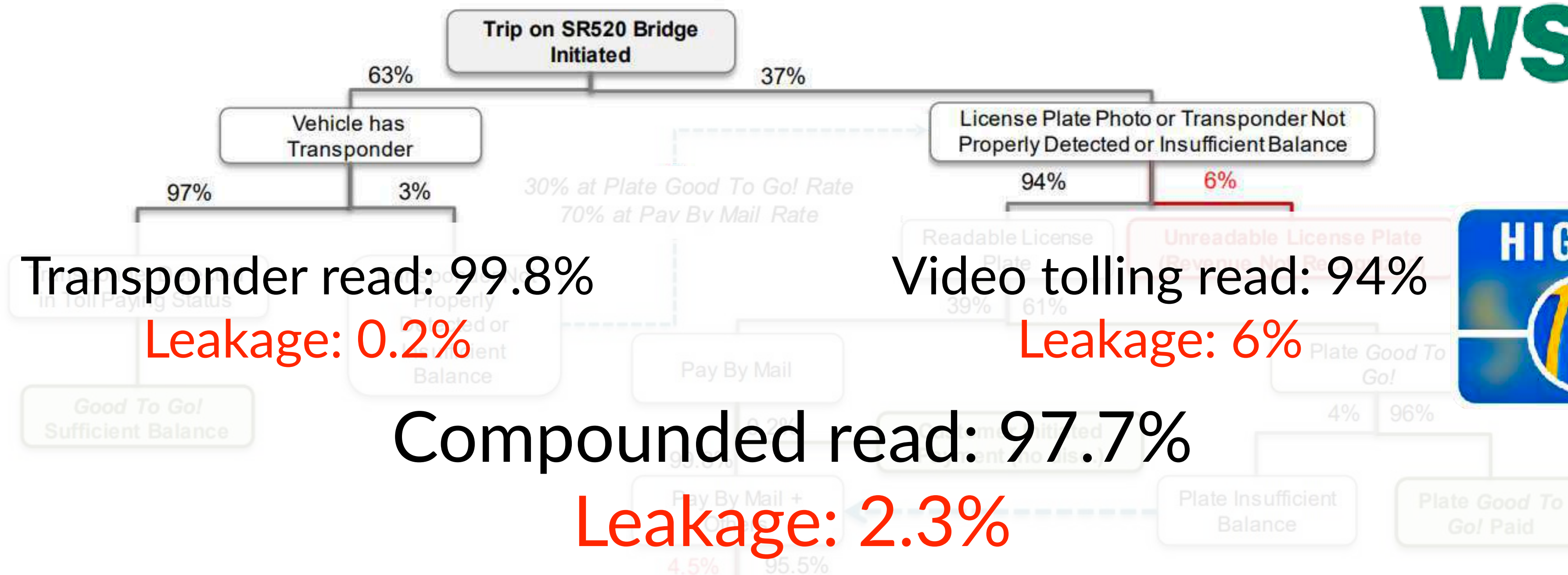
Exhibit 29: SR 520 Toll Transaction Activity Workflow—November 2018 Forecast



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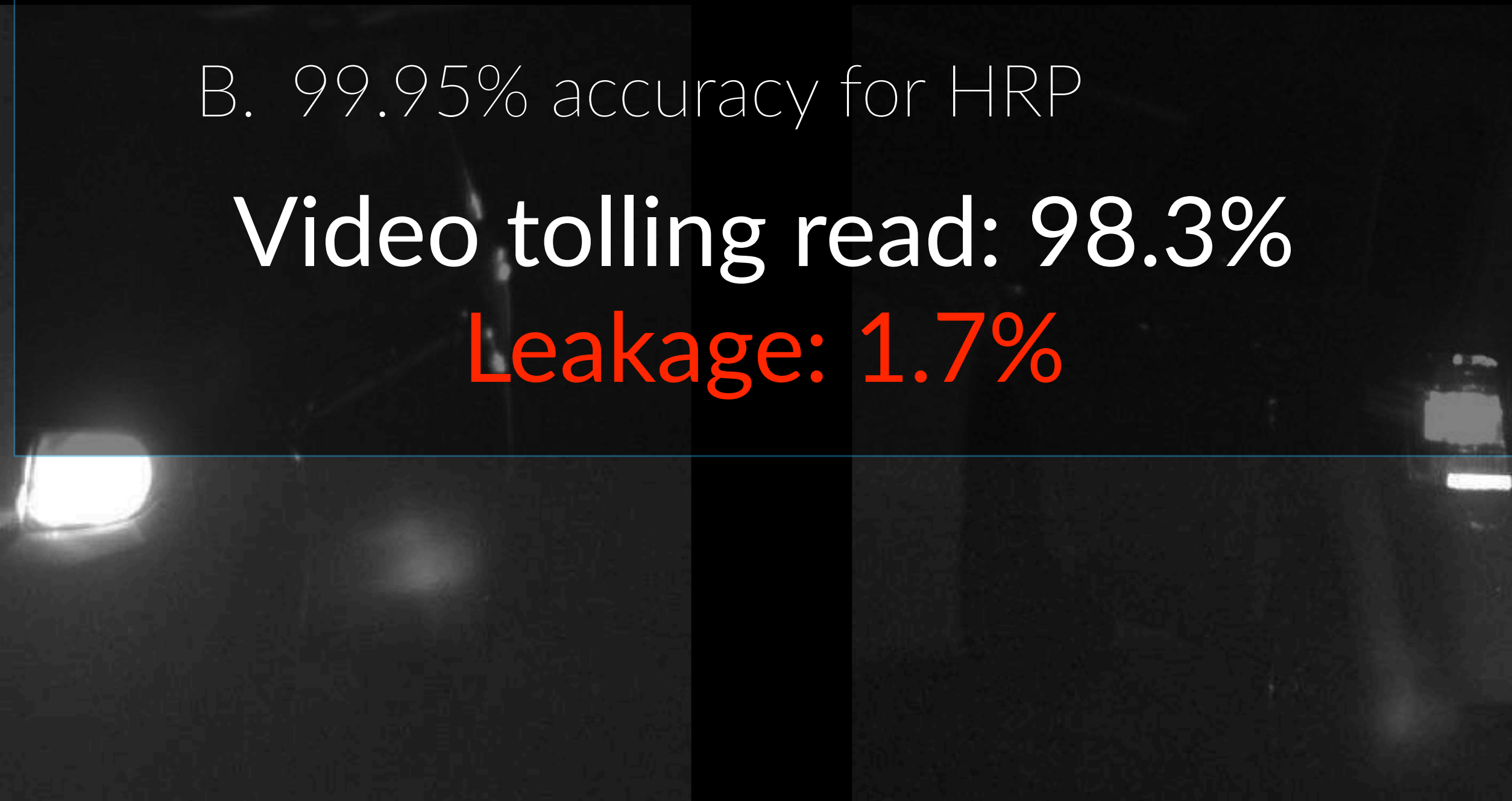
### BLISSWAY Leakage

(I-70 Apr.21 stats):

- A. 98.3% human-readable plates (HRP)
- B. 99.95% accuracy for HRP

**Video tolling read: 98.3%**

**Leakage: 1.7%**



### 3. I-70 Pilot Phase 1 – Live Demo

(BLISSWAY to screen share  
the I-70 Dashboard)

# 4. Proposed Phase 2



6.2 miles



## 5. Why Phase 2 could matter for HPTE?

By 2023, CO could have three types of toll customers,  
all of them interoperable:

CENTRAL HUB  
Interoperable Accounts

E-470 Accounts



HPTE Accounts





Q&A



# Annex



# Returning From Ski Resorts



# (1 of 2) Trailer and Multiple Plates



# (2 of 2) Trailer and Multiple Plates



# (1 of 3) Mud and no Front Plate



# (2 of 3) Mud and no Front Plate



# (3 of 3) Mud and no Front Plate



# (1 of 2) Bike Rack



# (2 of 2) Bike Rack

