

FlashRT

AI-Guided Carrier Onboarding Technology

Concept Overview & Commercial Value Assessment



Michael J. Hinkle III | Inventor | 2025

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Intellectual property documentation in progress. Full technical specification available under NDA.

The Problem



Every last-mile delivery organization faces the same invisible bottleneck: new carrier onboarding.

Learning a delivery route is not simply a matter of knowing the streets. It requires internalizing the precise physical layout of a sorting case — hundreds of individual address slots that must become muscle memory before a carrier can work efficiently and accurately.

This learning curve costs organizations weeks of reduced productivity per new hire, generates sorting errors that damage customer trust, and places disproportionate supervisory burden on experienced staff during a new carrier's earliest and most critical weeks.

Manual instruction, printed route books, and repetitive practice have been the standard for decades. No technology has meaningfully addressed the physical, in-the-moment challenge of guiding a new carrier through the casing process in real time.

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The industry
has accepted
this friction as
the cost of
onboarding.

FlashRT eliminates it.

FlashRT

The Concept



FlashRT is an AI-assisted carrier guidance system designed to eliminate the cognitive friction of learning a new delivery case.

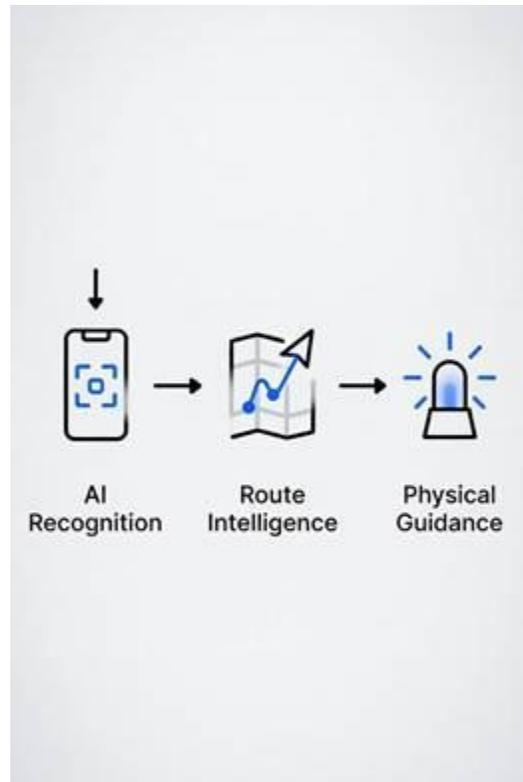
Using a mobile device, a carrier scans an incoming mail piece. FlashRT reads the address, references the route's organizational structure, and instantly indicates the correct physical slot on the sorting case — removing the need to manually search, cross-reference printed materials, or rely on memory during the learning phase.

The result is a fundamentally different onboarding experience. Instead of learning the case and then sorting mail, new carriers sort mail and learn the case simultaneously — guided in real time by an intelligent system that responds to each piece as it is handled.

FlashRT transforms the sorting case itself into a responsive, intelligent workspace.

The Innovation

What makes FlashRT novel is not any single component but the integration — a seamless connection between artificial intelligence, address data, and physical workspace guidance that has not previously existed in last-mile delivery environments.



The FlashRT System: Three-Element Integration

The system is designed to:

- Work within existing physical infrastructure rather than replacing it — requiring no case redesign or facility modification beyond the guidance system itself.
- Operate at the speed of the sorting process — delivering guidance fast enough to match a carrier's natural working pace without creating new friction or workflow interruption.
- Scale across route complexity — handling the full range of address structures, including standard ranges, exceptions, and rural delivery variations that make real-world routes significantly more complex than simplified models suggest.
- Function as a training accelerant rather than a permanent dependency — designed so that carriers develop genuine route knowledge through the guided experience rather than becoming reliant on the system indefinitely.



The FlashRT scan moment: mobile device reads address, case slot illuminates instantly

The Workflow: Before and After



Without FlashRT (left): manual search, route book, error risk. With FlashRT (right): scan, illuminate, place.

WITHOUT FlashRT	WITH FlashRT
<ol style="list-style-type: none"> 1. Carrier receives mail piece 2. Reads address manually 3. Searches printed route book 4. Scans case visually row by row 5. Places in slot — with significant error risk 	<ol style="list-style-type: none"> 1. Carrier receives mail piece 2. Scans piece with mobile device 3. FlashRT reads address instantly 4. Correct slot illuminates immediately 5. Places in slot — guided, accurate, confident



I didn't invent FlashRT in a lab or a startup. I invented it standing in post offices across Washington State, watching new carriers struggle through the same painful learning curve I'd managed for over a decade. The solution became obvious once I stopped accepting the problem as permanent.

— Michael J. Hinkle III, Inventor

FlashRT

The Market Opportunity



The scale of last-mile delivery operations — every sorting station represents a FlashRT opportunity

The last-mile delivery industry is among the largest employers in the United States and faces persistent structural challenges in carrier recruitment, onboarding speed, and retention. Every major delivery network — postal, private, and emerging — shares the onboarding problem FlashRT is designed to solve.

Industry Context

- USPS employs approximately 300,000 carriers nationally across ~31,000 post offices
- FedEx, UPS, Amazon Logistics, and hundreds of regional carriers face identical onboarding challenges
- Carrier turnover rates in last-mile delivery create recurring onboarding costs at scale
- No technology currently exists that addresses the physical, in-the-moment case guidance problem

Estimated Labor Efficiency Value

The following projections are built conservatively from a single-route baseline and scaled to illustrate the commercial value at multiple deployment levels. All assumptions are stated explicitly and the methodology is transparent.

Baseline Assumptions

Assumption	Value Used
Time saved per carrier per day (onboarding phase)	1 hour (conservative)
Active onboarding learning phase duration	10 working days (2 weeks)
New carrier onboarding cycles per route per year	2.4 cycles (reflects industry turnover)
Carrier base hourly compensation	\$25.00 / hour
Fully-loaded labor cost (with benefits)	\$33.75 / hour (~1.35x base)
Supervisory time saved per onboarding cycle	5 hours @ \$35.00 / hour
Addressable USPS market for national calc	~6,200 offices (20% of ~31,000)

Single Route — The Conservative Baseline

1 hour saved/day × 10 days = 10 hours saved per onboarding cycle

10 hours × 2.4 cycles/year = 24 hours saved per route annually

Carrier savings: 24 hrs × \$33.75 = \$810 / route / year

Supervisory savings: 5 hrs × \$35 × 2.4 cycles = \$420 / route / year

Combined total: \$1,230 per route per year

FlashRT Estimated Labor Efficiency Value by Scale

Conservative baseline: 1 hour saved per carrier per day | 2.4 onboarding cycles per route per year | Fully-loaded labor cost applied

Deployment Scale	Hours Saved / Year	Full Value (Loaded)	Base Wage Value
Single Route	24 hrs	\$1,230	\$810
Single Office (6 routes)	144 hrs	\$7,380	\$4,860
District (75 offices)	10,800 hrs	\$553,500	\$364,500
National (20% market)	892,800 hrs	\$180M+	\$120M+

Values represent fully-loaded labor efficiency estimates combining direct carrier savings and supervisory time savings. Error reduction value, redelivery cost savings, and retention improvement represent additional value not captured above.

At conservative national deployment across 20% of the addressable USPS market:

FlashRT represents an estimated \$120M–\$180M+ in annual labor efficiency value.

This does not include FedEx, UPS, Amazon Logistics, or regional carrier networks.

Development Status



FlashRT was independently conceived and developed by Michael J. Hinkle III in 2025, drawing on over a decade of direct operational experience managing last-mile delivery teams, carrier onboarding processes, and route performance across multiple markets.

Current Status

- Full technical specification and prototype build plan completed
- Performance testing protocol with defined acceptance criteria established
- Commercialization roadmap developed including staged pilot strategy
- Intellectual property documentation in progress
- Enterprise device platform compatibility assessed

Near-Term Roadmap

- Hardware prototype build and bench testing
- Independent pilot with non-USPS mailroom or delivery environment
- ROI validation through structured performance data collection
- Partnership and commercialization conversations with delivery industry operators

Conversations with potential development partners, pilot organizations,
and commercialization advisors are welcome.

Full technical specification available under mutual NDA.

About the Inventor

Michael J. Hinkle III is an operational program management leader with 12+ years of experience in distributed field service, workforce development, and compliance governance in high-pressure, regulated environments. He brings a rare combination of deep operational domain expertise and applied AI tool proficiency to the development of technology solutions grounded in real-world operational experience.

FlashRT was conceived from direct, sustained operational experience with the carrier onboarding problem — not as an outside observer but as a leader who has personally managed the cost, frustration, and systemic inefficiency of manual case learning across multiple delivery markets.



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This document presents FlashRT at the concept and commercial value level. Technical implementation details are protected and available only under mutual non-disclosure agreement. Unauthorized replication of the FlashRT concept may constitute intellectual property infringement.