patrolfinder

Reducing Crime with Technology

Abstract

This white paper explores the strategic development and deployment of **Patrolfinder**, a patrol management software created through a public-private partnership between the **Schenectady Police Department (SPD)** and **Transfinder Corporation**. Patrolfinder was designed to address such modern policing challenges as: fragment information (information silos), uneven coverage, reactive policing, limited transparency, operational inefficiencies, community concerns, and modern policing challenges.

These issues are exacerbated by: strained resources, escalating crime drivers (opioids, mental health crisis, deserted properties, lack of data).

Patrolfinder has transformed patrol operations in Schenectady, NY. The paper outlines the system's evolution, core features, implementation strategy, and measurable outcomes, including significant reductions in crime and improved community engagement.

The result is a reduction of street-level crime nearly across the board, from robberies and vehicle thefts to vehicle crashes and more.

1. Introduction

In 2016, SPD faced mounting challenges: rising call volumes, staffing shortages, and community frustration over inconsistent police visibility. **Chief Eric Clifford**, newly appointed at the time, initiated a dialogue with residents, businesses, and internal stakeholders to identify root causes and potential solutions.

> **One of the biggest things I heard was, 'We can't ever get a police officer to come to us when we need them.'"**
>
> **Chief Eric Clifford, Schenectady Police Department, Schenectady, NY**

This feedback catalyzed a partnership with Transfinder Corporation, a Schenectady-based software company with deep expertise in GIS and logistics. Together, they envisioned a system that would guide officers not just to where calls were occurring—but to where their presence was needed most.

2. Problem Statement

SPD's challenges were multifaceted:

- Reactive Patrol Patterns: Officers often followed habitual routes, missing underserved areas.
- Information Silos: Data was fragmented across systems, limiting situational awareness.
- Community Disconnect: Low-crime neighborhoods felt neglected due to infrequent patrols.
- Officer Safety Risks: Lack of real-time incident visibility increased vulnerability.
- Resource Strain: Increased calls from mobile devices and social issues (e.g., opioid crisis, homelessness) stretched limited staff.

3. Solution: Patrolfinder

3.1 Conceptual Foundation

Inspired by the **"Koper Curve"** and hot spot policing models, Patrolfinder was designed to:

- Track patrol coverage in real time.
- Identify areas lacking recent police presence.
- Provide officers with actionable data in the field.

We really tried to solve the question: where are you not going?

Antonio Civitella, CEO of Transfinder – the company that developed the award-winning Patrolfinder solution

3.2 Core Features: Common Operating Picture

- Live Mapping Interface: Displays patrol points, attention points, and incident data.
- CAD Integration: Shows active and historical calls for service.
- Dosage Tracking: Measures time spent in hot spots to evaluate patrol impact.
- BOLOs and Bulletins: Centralized location for information about Police and Safety Bulletins.
- Customizable Icons and Forms: Prioritize incidents and community concerns (i.e. hot spots and property checks).
- Mobile Accessibility: Supports Mobile Data Terminals (MDT) and mobile devices for walking beats.

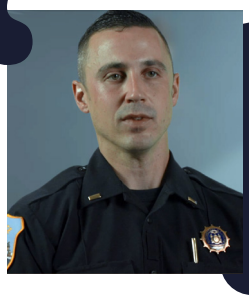
3.3 Accessibility

- Information access: Quickly retrieve real-time information appropriate to the profile of the user (patrol officer, analyst, dispatcher, command center).
- Device Independence: Data can be securely accessed across all major platforms, including iPhone, Android, tablet, desktop, and laptop devices (MDT's).
- Data Display Format Independence: Present data in the format best-suited to your needs whether as a map, table, chart, or a dashboard.

4. Implementation Strategy

4.1 Phased Rollout

- Train the team on the importance of visibility or what we call "Flying the Flag."
- Introduce Patrol Points and build team familiarity through consistent use.
- The team refines and optimizes patrol goal times (frequency of visits) over time.
- Incorporate officer-created Attention Points, allowing officers to log issues directly on the map (e.g., abandoned vehicles, suspicious persons).
- Activate Bulletins and BOLOs to simplify workflows and eliminate the need to switch between systems, improving situational awareness.
- Enable real-time CAD call integration, giving officers a complete, unified view of all relevant data within Patrolfinder.
- The phased roll-out allowed our officers to fully leverage each data source while enabling us to amplify its impact when combined with other location-based information.



We started with our patrol points … and grew into attention points—something we want to focus your attention on, not necessarily a call for service.

Sgt. Pete Montalto, Schenectady Police Department, Schenectady, NY – Project Manager for Patrolfinder

5. Analytical Integration

5.1 Data-Driven Policing

SPD's analysts leveraged Patrolfinder to:

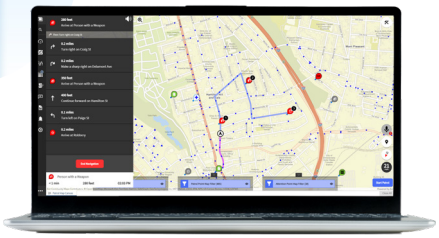
- Monitor zone coverage and workload balance.
- Evaluate hot spot dosage and patrol effectiveness.
- Generate interactive dashboards and automated reports.

> **The culture has changed in our department. I now hear hot spots and patrolling in everyday hallway conversations. That's definitely changing policing in itself.**
>
> **Matthew Douglas, Analyst**
> **Schenectady Police Department, Schenectady, NY**

5.2 Performance Metrics

Compared to a five-year average, SPD reported since implementing Patrolfinder, a:

- 46% decrease in motor vehicle thefts
- 25% decrease in vehicle crashes
- 16% decrease in reported robberies
- 12% decrease in confirmed shots fired
- 8% decrease in burglaries



6. Community Impact

Patrolfinder has strengthened community trust by:

- Increasing visibility in underserved neighborhoods.
- Addressing quality-of-life issues proactively.
- Providing transparency through data-backed patrol decisions.

> It's significantly enhancing our ability to monitor as well as have accountability regarding efficiency and community visibility. The public is now seeing us patrol in their particular areas That's something I always wanted to be able to see. That is now in place. We can literally have data to track zone coverage in our city.
>
> **Matthew Douglas, Analyst**
> **Schenectady Police Department, Schenectady, NY**

7. Officer Safety & Morale

The system enhances officer safety by:

- Displaying nearby incidents in real time.
- Allowing officers to request backup before engaging.
- Reducing burnout through smarter patrol planning.

> Before Patrolfinder, you might have driven by a place aimlessly and not even realized it and then rolled into this situation by yourself. Now you can see it and wait for backup,.
>
> **Sgt. Pete Montalto, Schenectady Police Department, Schenectady, NY – Project Manager for Patrolfinder**

8. Scalability & Future Development

Patrolfinder has scaled beyond Schenectady and is now in use across the country because:

- Challenges addressed are common across departments.
- Patent secured for core technology.
- Future integration planned with RMS systems for deeper analytics.

> **We realized this is not unique. A majority of organizations across the country really couldn't tell you places that they have not been.**
>
> **Antonio Civitella, CEO of Transfinder – the company that developed the award-winning Patrolfinder solution**

9. Conclusion

Patrolfinder represents a paradigm shift in policing. By combining real-time data, intuitive design, and collaborative development, Patrolfinder, with input from police agencies such as SPD, has created a model for smarter, safer, and more equitable patrol operations. The measurable outcomes—both in crime reduction and community trust—demonstrate the power of innovation rooted in on-the-ground partnerships.

To learn more about Patrolfinder, Scan the QR Code to visit Patrolfinder.com, email getpatrolfinder@transfinder.com or call **800-373-3609**.