

From Fragmented to Connected: 25 Years that Changed Everything

How Kentucky Built the Technology Blueprint for Smarter, Safer Public Safety



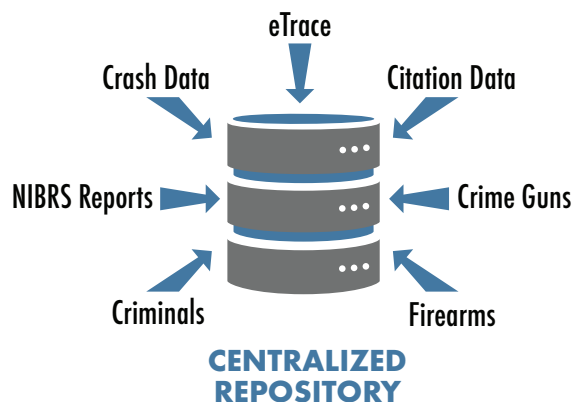
The terrorist was already driving away.

The officer completes a routine traffic stop, notices multiple cell phones in the back seat, and something feels off. In the old days, that suspicion died with the traffic stop. But this officer creates a field information report. Within hours, analysts at a centralized data repository identify the individual as being on a national terrorist watchlist. Arrest follows.

This isn't luck. Instead, it's what happens when 25 years of patient work connects every piece of law enforcement data across an entire state, creating what Kentucky calls a centralized repository of information.

While many agencies still struggle with paper-based processes and siloed systems, Kentucky has built something different: A platform where a traffic crash report can reveal human trafficking patterns, while warrant execution occurs in hours instead of days, and rural counties have access to the same investigative tools as major cities.

In Kentucky, the future is now.





The problem: Fragmented systems = fragmented responses

The 1998 reality

Understanding Kentucky's transformation requires one to look back decades. In 1998, the Kentucky State Police (KSP) operated like most agencies across the U.S., with **100% paper-based reporting and 39 people working across three shifts** manually keying crash data into mainframe "green screens."



Lt. Col. Larry Newton, Assistant Chief of Technical Services, recalls the dangers of Kentucky's old paper-based system: *"As a trooper, I juggled stacks of forms and violation code books during stops that were cumbersome and risky."*

Diagramming crash accidents inside tiny boxes on paper was challenging. *"No matter if it was just a single vehicle collision with a deer or a collision involving several commercial vehicles on an Interstate, you had to make it fit."*

While he drew, his head was down, compromising safety.

1998

39 employees
100% paper based

ALL electronic
ONE employee
working 25% time

2025

=
99%
workforce
efficiency
gain

The hidden cost

When a small-town sheriff got a call about suspicious activity involving a person who used the same modus operandi encountered in three other counties, he had no way to know that connection existed. Officers made life-or-death decisions with half the story.

The bigger picture

Many law enforcement agencies today, perhaps yours, still face these challenges: paper-based processes that hinder response times, siloed systems that obscure patterns, and resource disparities that leave some of your communities under-protected.



The vision: Think bigger than crash reports

Lt. Col. Larry Newton inherited a working crash reporting system but recognized the possibilities were endless. What started as solving data collection problems became something unprecedented. It became Kentucky Open Portal Solutions (KyOps), a platform connecting every aspect of law enforcement across Kentucky's 120 counties.

Newton is characteristically humble. *"I would be remiss if I didn't acknowledge the beginning vision... Many intelligent, forward-thinking KSP employees worked diligently to get this KyOps concept off the ground."*

The expansion grew organically from user feedback.

"The KyOps crash reporting system was user-friendly. We believed other reports should be created in this system."

— Lt. Col. Larry Newton

The breakthrough came when officers started asking: *"If crash reporting works this well, why can't citations work the same way?"*

That question changed everything.

The screenshot shows the KY OPS software interface. At the top, it says "NON-PRODUCTION Version: 2025.7.28.1435". Below that is a navigation menu on the left with options like "New", "Quick Capture", "Submitted", "Review", "Accepted", "Rejected", "Assigned", "Open Cases", "Incomplete Citations", "CAD Entries", and "All". The main area displays a table of incident reports with columns: Type, Status, Local/Case #, Entry Date, Last Modified, Location, Submit Officer, and Denial. The table contains several rows of data, including entries for "NERS", "Evidence", "Collision", and "Citation" with various dates and locations.

Type	Status	Local/Case #	Entry Date	Last Modified	Location	Submit Officer	Denial
NERS	Incomplete	12-25-1000	7/25/2025 3:58:59 PM	7/25/2025 3:59:20 PM		999	
NERS	Incomplete	12-25-1000	7/25/2025 3:57:57 PM	7/25/2025 3:58:20 PM		999	
NERS	Incomplete	12-25-0100	7/25/2025 3:55:24 PM	7/25/2025 3:56:14 PM		999	
Handle with Care	Incomplete		7/25/2025 3:52:09 PM	7/25/2025 3:52:09 PM		999	
Evidence	Incomplete		7/25/2025 3:49:35 PM	7/25/2025 3:49:43 PM		999	
Evidence	Incomplete		7/25/2025 3:48:58 PM	7/25/2025 3:48:58 PM		999	
Collision	Incomplete		7/25/2025 3:36:16 PM	7/25/2025 3:36:25 PM		999	
Citation	Incomplete		7/25/2025 2:51:29 PM	7/25/2025 3:38:02 PM		999	
Collision	Incomplete		7/22/2025 4:10:30 PM	7/25/2025 3:36:20 PM		999	
Citation	Incomplete	C569376	7/22/2025 3:55:57 PM	7/25/2025 3:47:37 PM	MAGNOLIA AVE	999	
Citation	Incomplete		7/22/2025 2:45:17 PM	7/25/2025 3:36:50 PM	SMITHFIELD RD	999	
Citation	Incomplete		7/22/2025 2:42:59 PM	7/22/2025 2:44:06 PM		999	
Citation	Incomplete		7/22/2025 2:40:58 PM	7/22/2025 2:42:03 PM		999	
Citation	Incomplete		7/22/2025 12:31:50 PM	7/22/2025 12:31:59 PM		999	
Citation	Incomplete	C569376	7/16/2025 4:06:30 PM	7/16/2025 4:06:44 PM	MIDLAND TRL	999	
Citation	Incomplete	C569376	5/6/2025 2:46:25 PM	5/6/2025 2:53:08 PM	OLD VESCHALE RD	999	
Collision	Incomplete	11-11-1111	5/6/2025 2:08:06 PM	5/6/2025 2:40:04 PM	BUCK CREEK RD	999	
Collision	Incomplete		5/6/2025 11:23:56 AM	5/6/2025 11:24:05 AM		999	
Collision	Incomplete	11-11-1111	5/6/2025 9:49:53 AM	5/6/2025 1:45:26 PM	CARDINAL DR	999	
Citation	Incomplete	C569376	5/2/2025 3:08:49 PM	5/2/2025 3:12:03 PM	BTH ST	999	
Collision	Ready To Transmit	11-22-3333	7/22/2025 12:20:14 PM	7/22/2025 12:41:15 PM	TODDS POINT RD	999	
Citation	Incomplete	C569376	5/1/2025 6:37:00 AM	5/6/2025 10:47:14 AM	SHIPLEYVILLE RD	999	
Citation	Incomplete	C569376	4/30/2025 3:46:39 PM	5/6/2025 10:24:44 AM	MAPLEWOOD DR	999	

Each success spurred the next integration, always focused on serving all 120 counties equally. The crash infrastructure proved resilient enough to handle ambitious integrations: electronic citations with court integration, comprehensive warrant management, sex offender registries, criminal history systems, and federal ATF eTrace Direct crime gun tracing—a first-in-the-nation achievement.

For Newton, this represents justice and equal opportunity.

Rural counties now access the same powerful investigative tools as major departments. A deputy in small-town Kentucky can access the same data and receive the same alerts as an officer in Louisville or Lexington.

The transformation: Connected data changes everything

Safer, more efficient officers

The difference becomes clear when Newton describes officers' experiences before and after KyOps. Previously, a simple traffic citation involved juggling citation books, violation code lookups, and carbon copies. *"I would have to stop and look up from my citation book several times for officer safety,"* he recalls.

Today, scanners automatically populate violator information directly into citations. Violation codes appear in drop-downs. Officers can select up to nine violations per citation instead of four. Lifesaving moments of cross-agency insight open up.

A screenshot of the KyOps software interface. The top navigation bar includes 'KyOps', 'Citation - Charge and Court Information', and a 'NON-PRODUCTION' warning with a version number. The left sidebar lists menu items: 'Citation Preliminary', 'Offender/Violator Information', 'Violation Data, Time, Location', 'Arrest Data, Time, Location', 'Vehicle Information', 'Charge and Court Information', 'CJA Tools', 'Violation', and 'Final Edit'. The main content area is titled 'Charge Details' and contains several sections: 'Counts' with a table of violations, 'Charges (Max 9)' with buttons for 'Add Charge', 'Update Charge', 'Remove Charge', and 'Clear Charge', 'Chemical Tests' with fields for Breath, Blood, and Urine, and 'Court Information' with fields for 'Court Date' and 'Court Location'. The bottom of the screen has a row of colored buttons: 'Previous', 'Next', 'Save', 'Print', and 'Cancel'.

Real-world impact

The power of Kentucky's connected data — disparate data sources brought together for a single view — becomes clear in cases that were previously impossible.

The terrorist: What Newton describes as the *"very first field report submitted"* started with an officer's gut feeling that something was off during a traffic stop. In states without Kentucky's system, that same officer would have filed it away as just another gut feeling with nowhere to go. Today, Kentucky turns those instincts into safer communities.

The payback: Investigators discovered through social media that a recent shooting victim had been jailed months prior on assault charges. The original incident involved a female suspect who shot her boyfriend and was released on bond. When detectives cross-referenced this through KyOps, they realized the recent shooting was retaliation — the new shooter was the previous victim seeking "payback." The suspect was quickly apprehended.

Numbers that matter



Kentucky's process for handling crash data underwent a significant change, reducing the workload from 39 people across three shifts to one person spending 25% of their time on collision reports. The workforce efficiency gain? Over 99%.

The state achieved dramatically improved data quality through automation. Model Minimum Uniform Crash Criteria (MMUCC) compliance jumped from below 35% to over 90%. Processing times went from lengthy backlogs to a day-to-day environment.

Kentucky became the first in the nation to automate ATF crime gun tracing, earning the U.S. Attorney General’s Award for Excellence in Information Technology in January 2024.

The system in action: KyOps as a force multiplier

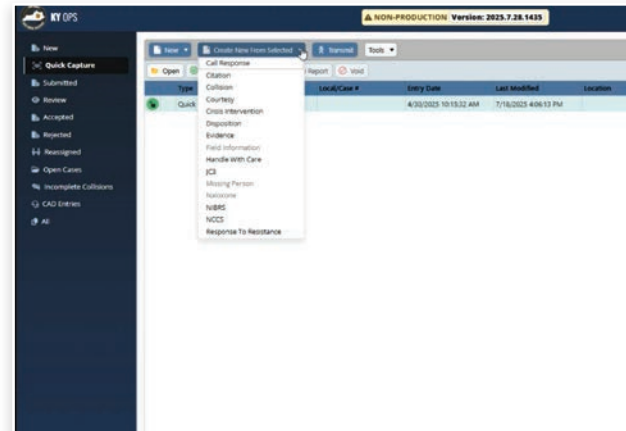
Today’s KyOps platform consists of 16 different “wizards” — guided data-entry modules feeding the same central system. Powerfully integrated, a quick capture function allows officers to scrape information to populate other wizards rather than retyping.

Information captured once, now works everywhere, allowing the small-town sheriff to get the full story on suspicious activity across county lines — precisely what was missing in the old fragmented system.

Importantly, systematic improvements compound over time.



Teams can create better training programs based on comprehensive incident data. Officers statewide benefit from lessons learned and best practices identified through pattern analysis.



When children are involved in certain incidents, KyOps instantly sends notifications to school personnel, alerting them that a student may need additional support. This seamless connection between law enforcement and education helps protect vulnerable young people.

Kentucky collects statistics for the National Highway Traffic Safety Administration (NHTSA), the Fatality Analysis Reporting System (FARS), and to the FBI’s National Incident-Based Reporting System (NIBRS) immediately after submission, securely and uniformly. What once required months of manual compilation now happens automatically.

The forensic connection

Newton oversees Kentucky’s six state forensic labs, processing 44,671+ cases annually. The next evolution promises an even faster case resolution.

“The investigator can submit their evidential analysis report to their investigative report wizard,” Newton explains. “This moves investigations forward with no delays, contacting the laboratory.”



Lessons for other agencies and states: Starting the journey

For agencies considering their own integration efforts, Newton offers practical advice rooted in Kentucky's 25-year experience. *"I would recommend each state start with a conversation of expectations with their strategic partner."*

Crucially, don't attempt to replicate Kentucky's full system immediately. *"Starting with one simple wizard may be the safest way to proceed in your data migration,"* he suggests. Demonstrate early wins before adding more complexity.

Common mistakes to avoid

Thinking too small: This brings simplicity, but Newton points out that *"our reporting system succeeded because leaders could imagine it becoming something much larger."*

Underestimating risk vs. reward: Every integration brings vulnerabilities — data breaches, system corruption, or manipulation risks. *"Every software engineering opportunity must start somewhere,"* but agencies must carefully weigh each connection's security implications against its operational benefits.

Ignoring platform thinking: Rather than building separate systems for different functions, successful integration requires thinking about how various law enforcement needs can be served by a unified platform that grows over time.

The compression opportunity

Encouragingly for other states, Newton believes Kentucky's timeline can be dramatically shortened.

"Watching the success of KyOps over the last 25 years, I am confident other states could begin the process and complete it in far less time, perhaps even in one to two years."

However, he cautions: *"KyOps was built from the ground up and expanded over the years. There could be challenges depending on a state's current database language."*

For the blueprint to work, agencies must embrace several non-negotiable elements:

1. Leadership commitment to long-term vision
2. User-driven expansion based on actual needs
3. Focus on equality across all agencies
4. Patience for iterative improvement over breakthrough moments



Looking forward: The unfinished vision

In Kentucky, the integration journey still unfolds — it's a platform for greater possibilities. *"The future is now with the KyOps software platform, as it is currently undergoing a refresh with many enhancements being deployed."*

Up ahead is a progressive web-based platform that is agnostic to what device or operating system officers use, while providing public-facing state crime and crash dashboards. All in real time.

Citizens can see trends, run queries, build reports, and access statistical analysis tools. *"It generates extracts of information for the citizens of the Commonwealth of Kentucky, further enhancing public safety."*

Kentucky's journey demonstrates that connected law enforcement data isn't just about efficiency. It's about equality, safety, and community trust.

For Newton and Kentucky, what comes next brims with possibilities to see connections others may miss — connections that could mean the difference between that small-town sheriff having the information he needs at the right time to make the right life-and-death decision or the wrong one.



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