

CASE STUDY

MAGNET AUTOMATE

MAGNET AXIOM

# Metropolitan Nashville Police Department

How a unified investigation and prosecution team greatly decreased mobile device backlog and accelerated justice



We get digital evidence to our detectives in hours or days, not the weeks or months it's been for years with the massive amount of digital devices."

— Chad Gish, Criminal Investigations Division Detective, MNPD

## The Challenge

### Taking on More Devices

Investigators and prosecutors work together closely to protect close to a million residents in Nashville—and digital evidence can play a crucial role in their cases. But, manually processing an average of three mobile devices for every case made backlogs inevitable, weighing heavily on everyone.

Team members knew every device waiting to be processed represented an unsolved crime with victims hoping for justice and suspects covering their tracks or benefiting from the deterioration of evidence.

"You carry that pressure with you," said Criminal Investigations Division Detective Chad Gish. "It went home with you on holidays and to your children's birthday parties."

But Gish and his team also knew adding personnel couldn't fix it.

"We were never going to be able to hire out of the backlog, even if we had a full staff of 20 examiners."

### About Metro Nashville Police Department

Serves almost 1 million citizens over 520+ square miles. Employs close to 1,600 sworn law enforcement officers.

#### CHALLENGES

- Incoming devices growing by 40% year over year
- Critical tasks interrupted by manual processing
- No way to meet demand with additional personnel

#### SOLUTIONS

- Centralized device processing and analysis
- Automated processing 24/7/365
- Customized forensic workflows

#### RESULTS

- Faster time to evidence
- Skilled time refocused to analysis
- Improved service to the community and examiners



The MNPD Criminal Investigations Division logs thousands of devices every year, and the volume is growing by hundreds—close to 40%—year over year. Device storage capacity also continues to climb.

Even so, detectives and prosecutors want to see more devices.

“That digital footprint is probably the most crucial evidence you can have in an investigation, especially early on,” said Sergeant Chris Dickerson with the MNPD Homicide Unit.

Prosecutor Jan Norman with the Nashville Davidson County District Attorney’s Office agreed.

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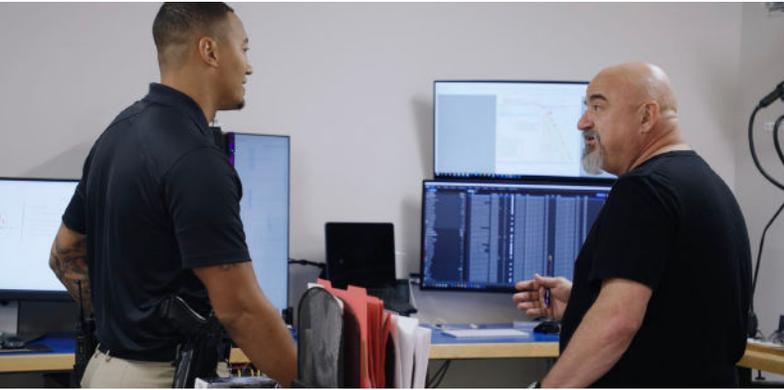
**116** cases processed within first week

**525** fewer devices in backlog within first few months

**24** hours or less new average turnaround for digital evidence



The only thing that I don’t want to have happen in one of my cases is for suspects to not have cell phones.”



# How Magnet AUTOMATE Helps

## Automating How Data Moves

Despite success with AXIOM, examiners still labored to keep investigations moving, particularly when they weren't physically in the lab. When called out on surveillance or other assignments, they would set their watches for three hours so they would know when to return and change out computers to parse or report. Gish summed it up: [“We needed a better way to push data through.”](#)

MNPD installed Magnet AUTOMATE to power their digital forensics workflows and accelerate digital investigations.

AUTOMATE facilitates the task of progressing data through each stage. As a result, digital devices can be processed around the clock and MNPD examiners can use their valuable skills for analysis instead of pushing buttons. Investigators and prosecutors receive evidence and reports automatically.

### And it all moves fast.

Within a few weeks of using AUTOMATE, the lab reduced its backlog by 300 devices and within the first few months, the total grew to 525 devices, comprising 19 terabytes of data.

The result? MNPD dramatically reduced its time to evidence, now usually delivered within 24 hours. [“We get digital evidence to our detectives in hours or days, not the weeks or months it's been for years with the massive amount of digital devices,”](#) Gish said.

In some cases, faster access to digital evidence enables the criminal investigations team to uncover physical evidence as well. For example, examiners may find a suspect's reference to throwing away clothes and tie it to a GPS location.

## Getting the Data in One Place

Previously, MNPD examiners used a variety of forensic tools to process and analyze digital data from different source devices like smartphones and computers.

Now, MNPD uses Magnet AXIOM to centralize processing and analysis from multiple sources, whether that's from mobile extractions using Grayshift's GrayKey, cloud data from an iCloud backup or a Google warrant return, or vehicle data from Berla iVe. With all their data in one case file, the investigative team can quickly home in on key evidence using AXIOM's advanced analytics tools like Timeline, Connections, and Magnet.AI.

Sergeant Dickerson described how he and other detectives use AXIOM to access and plot suspect or victim whereabouts.



That's where I start on every single case,” he explained. “I want to know their movements, who they were talking to, where they were. You really start to build a profile and Timeline allows you to narrow it down to the year, months, or even the day.”



“We can see that text message before the garbage truck comes,” Gish said. “You can’t do that if a phone is sitting in a backlog for months.”

## Customizing Forensic Workflows

To implement AUTOMATE at its lab that handles CSAM and violent crimes, MNPd worked with the Magnet Forensics Professional Services team. Together, they designed automated workflows across their forensic toolkit to fit the investigative needs of the department.

“It’s not robots. It’s just doing some of the tasks for us automatically,” Gish said, including device ingestion and extraction and image processing with AI, media categorization, and timeline construction; then, progression to reporting in Portable Case.



AUTOMATE frees us from time-consuming tasks to use our knowledge to investigate.”

Gish said, also noting an improvement in officer well-being by limiting return trips to the office overnight and on weekends.

The reduction in devices awaiting investigation also enhances the welfare of law enforcement personnel. “In the months since using AUTOMATE, I can tell my personal life and my health are better because I’m not carrying the pressure of those backlogs,” Gish said.

He described the integration between AXIOM and AUTOMATE as seamless, complimenting each other in layout and user experience reducing the learning curve for his examiner team. Detectives also find the review and reporting interface easy to use, so AUTOMATE is programmed to notify and deliver reports to them as well.



## Serving Justice as a Team

Within its first week using AUTOMATE, MNPD processed digital evidence for 116 cases, an amount that would have taken six months without automation. While 20x productivity is welcomed, it's the justice for the people they serve that really counts.

Though employed by the state of Tennessee, investigation and prosecution professionals all noted they work for the victims. To hear them sigh in relief. Or to see their family members offer tearful expressions of gratitude.

The investigative team also feels the satisfaction that comes from knowing others may avoid suffering due to the timely results achieved by examiners, detectives, and prosecutors.



We want to stop that next violent crime before it happens or protect that child before they get injured or hurt," Gish said. "With AUTOMATE, we're able to go through evidence right away and maybe prevent another crime from happening."

Jan Norman's advice to other district attorneys is to connect with forensic examiners and detectives, forming an investigative team that acts together to understand context, potential keywords for searching, and more.

"In every single case, I meet with our digital forensics experts so we can go through it together," Norman said. "You can often find those 'smoking guns' if you have that right combination with your forensics examiner, detective, and prosecutor."

In one instance, MNPD detectives tracked down a homicide suspect who had used his phone to search for the nearest pawn shop after burglarizing and stabbing a young victim in her apartment.

"That pawn shop was closing the very next week," Norman said. "If they had waited even two days, the shop would have not existed. The surveillance video would not have been there. And that was really critical identification ... we were fortunate to get a guilty verdict from the jury."

## Expanding Results to Other Labs

Due to its success in violent crimes cases, the Metro Nashville Police Department is now deploying Magnet AUTOMATE within a second unit to investigate the fentanyl overdose epidemic.

“We will now have digital evidence in the hands of our drug investigators in hours or days and can greatly reduce our backlog in this space,” he said. “It will help us take poison off the streets and save lives.”

Having relied on Magnet Forensics tools for years, Gish contrasted experiences as a customer with Magnet Forensics to MNPDP’s partnerships with many other digital forensics companies. “When it comes to Magnet, it feels like family,” he said. “They seem concerned with our problems as much as we are.”

In a way, MNPDP’s investigative teamwork extends even beyond state lines.

“A lot of times,” Gish noted, “it feels like my friends at Magnet are sitting in that seat next to me when I’m working really important cases.”



**Chad Gish**

Criminal Investigations  
Division Detective, MNPDP



**Jan Norman**

Assistant District Attorney, Nashville  
Davidson County DA Office



**Chris Dickerson**

Sergeant with Homicide  
Unit, MNPDP

Reduce your time to evidence with lab automation.  
Learn more about Magnet AUTOMATE at  
[magnetforensics.com/magnet-automate](https://magnetforensics.com/magnet-automate)

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