

**BRIGHTER THINKING  
FOR PUBLIC SAFETY**

**NEC**

**A GUIDE TO  
ROBOTIC PROCESS  
AUTOMATION**

# RELEASING THE FULL POTENTIAL OF POLICING

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# CAN POLICING AUTOMATE FASTER THAN CRIME?

## IT'S A BIG QUESTION

The digital world holds vast potential. From automation to AI, it's transforming police efficiency, agility and productivity. But it's doing the same for criminals too, enabling 90% of all crime<sup>1</sup>.

Both crime and policing are cyber-enabled, but only policing is cyber-constrained. Overwhelming volumes of data combined with strict regulations around its use have trapped many officers in manual processes when their skills and training would be better used elsewhere.

Robotic Process Automation (RPA) can free officers from repetitive, low-value and time-consuming work. The Policing Productivity Review highlights a raft of examples where RPA is saving thousands of hours (and millions of pounds) by taking over tasks that were previously done manually<sup>2</sup>.

- But where should you start?
- How do you scale up?
- And how can you lift the burden on officers without damaging the trust on which policing depends?

In this short guide, we suggest the best approach for a fast and sustainable return. We also look ahead, exploring where RPA might release further potential and when intelligent automation should probably take over.

<sup>1</sup>Digital Forensic Science Strategy, 2020 | <sup>2</sup>Policing Productivity Review, 2023

### About NEC Software Solutions

Our software is used by every police force, and our RPA services are freeing up thousands of hours of officer time.

As part of the global tech giant NEC Corporation, we're also at the forefront of cutting-edge developments in biometrics, 5G and AI.





# WHAT'S RPA DOING IN POLICING?

## GIVING TIME BACK TO THE FRONT LINE

Investing in RPA allows simple software tools to free officers and civilian staff from work that wastes their time. Whether you call them bots, digital workers or virtual assistants, these tools complete repetitive and predictable tasks at pace and without pause, delivering results much faster than their human colleagues.

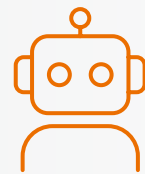
Take data cleansing. Duplicate records affect police effectiveness every day, acting as a brake on decision-making and complicating automation. Using a bot to locate and remove these duplicates is faster and more accurate. Here's an example of a project we're delivering for a UK force, which will achieve its objective in a quarter of the time and provide ongoing benefits too:

Identifying and removing duplicates from 120,000 records...



1 YEAR

VS



3 MONTHS

... and alerting analysts to new potential duplicates as they appear

Bots are also relatively cheap and easy to install, making them a game-changer if you process high volumes of data. It's why the global RPA market is expected to grow by 20% each year to 2030<sup>3</sup>.

<sup>3</sup>Fortune Business Insights, 2023

### THERE ARE USE CASES EVERYWHERE...

Policing is notoriously heavy on data and process, with the same information keyed into multiple systems daily. With RPA able to take over low-value work in almost every area, it's no surprise that forces have launched their journeys in different places, starting anywhere from duty management to traffic offences.

Current use in UK policing:

- Removing duplicates
- Entering data
- Copying records
- Submitting reports
- Sending notifications
- Monitoring alerts





# WHAT'S RPA DOING IN POLICING?

## ...AND EXTENSIVE BENEFITS

The advantages of RPA extend beyond basic speed. By replacing manual processing, tasks can also be completed 24/7 and without error, freeing officers from hours of daily admin while improving the accuracy of the data they rely on in the field.

### SERVING COMMUNITIES BETTER

Trained officers have more time to prevent harm, investigate crime and support victims.

### TURBOCHARGING PRODUCTIVITY

Bots can operate 24/7, enabling everyone to focus on higher value tasks.

### REDUCING COSTS

Most organisations report a 20-30% cost reduction and 30-50% return within six months. One of our UK policing clients anticipates saving £150,000 annually with just one bot.

### MAINTAINING ACCURACY

Bots can identify duplicate records (and who entered them) at source, enabling cleansing to be managed by exception and training needs to be identify quickly.

### IMPROVING COMPLIANCE

Bots process data faster and with greater accuracy, keeping trusted data at the heart of statutory reporting.

### TOO GOOD TO BE TRUE?

Bots are relatively cheap, readily available and they're already saving time and money in policing. There's no real catch, but it's fair to say the devil is in the detail:

- There's a sea of providers
- You can start pretty much anywhere
- They're only as good as the systems you connect them to
- They might offer far better results in a more complex automation

The key to maximising the benefits and avoiding diminishing returns is to pick the right provider and take a strategic approach.





# ARE ALL BOTS THE SAME?

## YES AND NO

The good news is that there's some great tech out there. We work with several different providers, often choosing one for a certain task and another for something else. One big consideration is cost.

We work with every UK police force, and we know that budgets are tight. Once we've identified the areas where RPA could make a difference, we might direct the bulk of the implementation costs towards the areas that offer the biggest return and explore whether smaller automations can be delivered without adding additional license costs. Power Automate, for example, may be available for free and offer a low-cost route to success.

The same goes for other systems too.

When we explore the potential benefits of RPA, we also review the capabilities within existing force systems or open source software. For one customer, our solution combines a bot using Power Automate with a rule change in NEC Connect, extending the benefits of an initial de-duplication project into ongoing maintenance of their records management system.

### I KNOW WHAT I WANT, SO WHERE DO I START?

In our experience, any time taken to assess and prioritise potential automations is time well spent.





# WHAT'S THE BEST APPROACH?

## START WITH THE POTENTIAL AND THEN FIND THE SHOWSTOPPERS

Our team is delivering RPA projects for a number of police forces and exploring future projects with many more. We find that forces often underestimate its potential, for two reasons. Firstly, manual work has become so embedded in policing that it seems like second-nature. Secondly, they're concerned about the upfront costs and complexity.

### SUSTAIN THE BIGGEST BENEFIT WITH A STAGED APPROACH



#### DISCOVERY - IDENTIFY THE PAIN POINTS

This stage quantifies the cost of manual tasks, checks the likely return, uncovers system issues and considers potential harms, particularly for victims or witnesses. It sorts potential targets into 'must', 'should', 'could' and 'won't' to reveal initial priorities.



#### IMPLEMENTATION - KEEP DOWNTIME TO A MINIMUM

This stage is all about planning the order of work to avoid disruption to people and systems. It includes formal testing and training to ensure people understand the new processes and should ideally include a period of hypercare too.



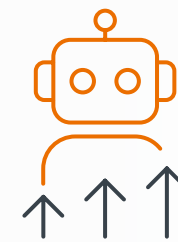
#### MONITORING - KEEP AN EYE ON RESULTS

If you started small, this may be easy. But for multiple or complex implementations it can get tricky quite quickly. Some solutions have management consoles built in, but if not, we're often asked to build monitoring bots to alert system teams to any problems.

### The usual suspects

Look for tasks or processes that are:

- Basic
- Repetitive
- Prone to error
- Time consuming
- Rules-based
- Slow



#### IMPROVEMENT - TAKE A 'BOT FIRST' APPROACH

Police systems change frequently to stay compliant with the latest regulations, often introducing new processes too. For each new process, consider whether a bot would be more cost-effective, perhaps using the efficiencies created by older bots.



# SEE RPA IN ACTION

Here's how we're helping two forces to automate the time-consuming processes:

## DATA SHARING WITH THE CPS



### THE TASK

- Sharing data on scheduled court appearances with the Crown Prosecution Service at fixed times of the day, including out of hours



### THE TIME

- 20 minutes to extract, remove duplicates and send each cleansed list
- 240 hours, or 1.5 FTEs annually, focused solely on this task
- Cost estimated at £60,000 per year



### THE SOLUTION

- One bot identifies, extracts and refines the list and emails it to the CPS at scheduled times



### THE RESULTS

- 1.5 FTEs freed up for higher value work
- **£60,000 savings** year on year
- Any new or amended records since the last submission are highlighted clearly for the CPS

## PROCESSING TRAFFIC OFFENCE REPORTS



### THE TASK

- Validating Traffic Offence Report data received by email in PDF form before entering it into PENTIP to issue penalty notices



### THE TIME

- 15 minutes to check each report against PNC and DVLA system and add to PENTIP, with 40,000 managed annually
- 10,000 hours, or 6 FTEs annually, taken up by this task
- Cost estimated at £180,000 per year



### THE SOLUTION

- One bot checks external systems on receipt of each report, enters the validated data into PENTIP and sends an email to confirm submission



### THE RESULTS

- Average processing time reduced to 1 minute per report
- 5 FTEs freed up for higher value work, with 1 to manage exceptions
- **£150,000 savings** year on year

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# WHAT SHOULD I LOOK OUT FOR?

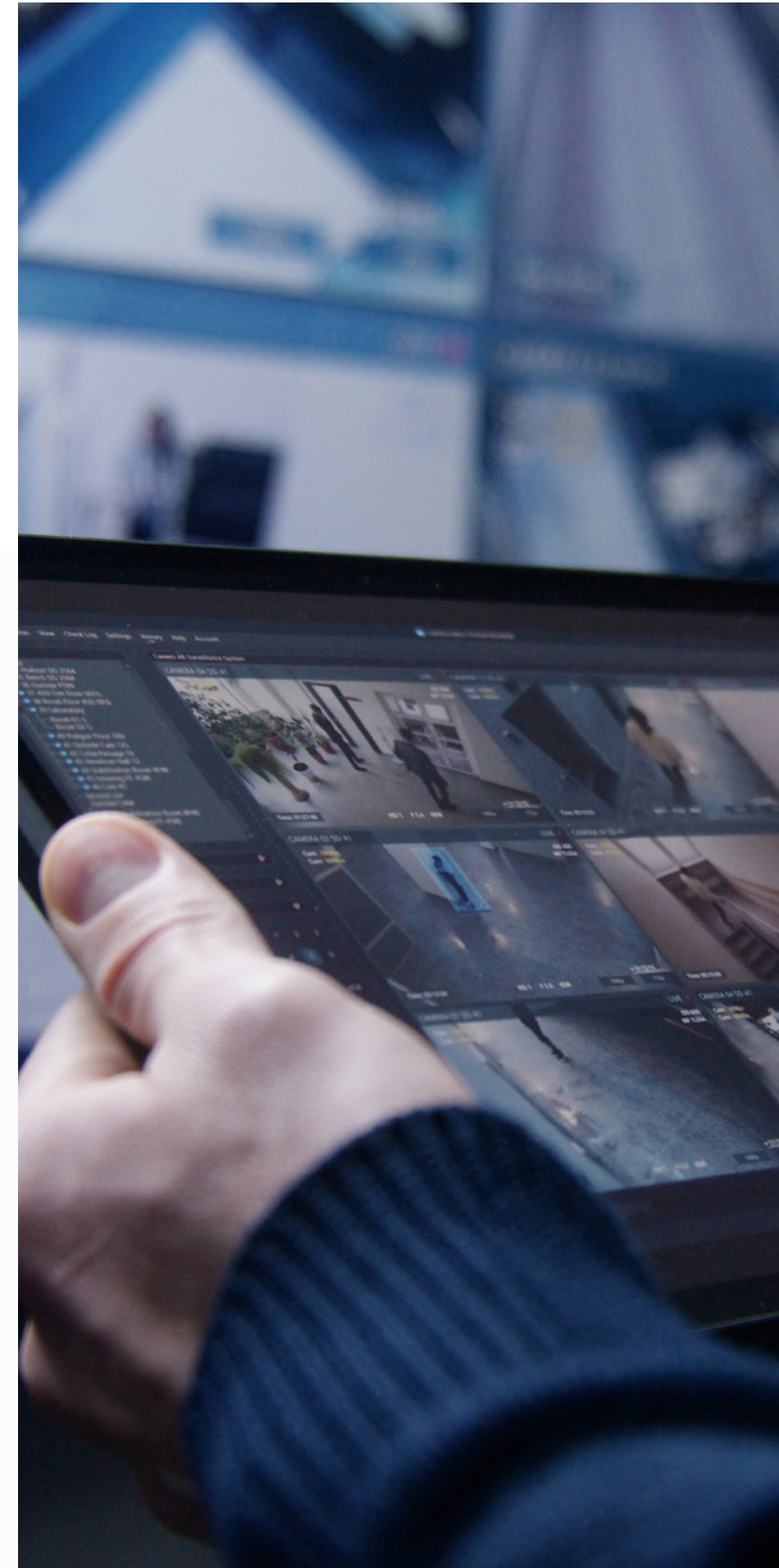
## THE RIGHT SKILLS AND THE RIGHT GOVERNANCE

While RPA solutions are simple, the range of police systems they can connect to may pose a real challenge. There is a risk that the potential benefits may be limited by a lack of familiarity with the underlying data models of these systems, particularly with older applications. At best, this might mean that tasks take two minutes on average when they could have been completed in one. At worst, the task throws up errors that go unnoticed for some time.

This means that robust governance is key. Who has oversight? How far should bots be public-facing? What safeguards should be in place?

Police data is a precious resource, with security of paramount importance, so forces must be sure they have the right skills in place to maintain existing bots and take advantage of future opportunities.

Because while bots can offer big benefits today, AI will offer a step-change.







# ARE BOTS GETTING BETTER? THE FUTURE IS HYPER-AUTOMATED

That such simple bots could transform police productivity is down to the sheer volume of manual tasks officers complete. For a relatively small investment, forces can achieve rapid and sustained returns in a whole range of areas.

As well as taking over tasks associated with front-line activity, like traffic offence reports, bots are also improving back-office processes. For one police customer, we've set up a bot to monitor the performance of their cloud in different locations, giving us the intelligence we need to balance the load and keep availability high. There's further potential in other non-core tasks too, like processing repetitive activity in HR or Finance.

But where should we forget the bots and start thinking about intelligent automation?



For a relatively small investment, forces can achieve rapid and sustained returns in a whole range of areas

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# THE EVOLUTION OF RPA

Simple bots work well as standalone tools and can also be found supporting wider automations in combination with other technologies. Yet automating manual processes still takes a lot of manual work. In future, that work will be automated. Powered by machine learning and AI, bots will be capable of developing, deploying and maintaining other bots:

**Simple task automation**



**Intelligent automation**



**Hyper-automation**

Does  $x = 3$ ?

What should happen when  $x = 3$ ?

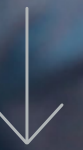
What do Bots A-C do if Bot D shows  $x \neq 3$ ?

To maximise the potential benefits forces will need to further strengthen governance, considering issues of equity and proportionality in the same way they do for biometric technologies today.

We continue to help our police customers prepare for and embrace the benefits of the digital world, enabling them to focus on public protection by keeping their software ready for the future.



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If you have any questions about this report or would like to find out more about our low-risk RPA Discovery programme, please get in touch.

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OUR GUIDE TO ROBOTIC  
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