

Robotic process automation (RPA) in multi-agency safeguarding hubs (MASH)

Using robotic process automation (RPA) to extract relevant risk information from Niche (record management system) to assist multi-agency safeguarding hub (MASH) processes.

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Key details

Stage of practice	Untested
Purpose	Organisational
Topic	Adults at risk Digital, data and analytics Investigation Productivity
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Region	South West
Partners	Police
Stage of implementation	The practice is implemented.
Start date	October 2024

Key details

Scale of initiative	Local
Target group	Adults Children and young people Families Offenders Victims

Aim

The automation process extracts relevant risk information from Niche (the force record management system) to assist four multi-agency safeguarding hub (MASH) processes:

- task queue prioritisation of risk referral forms
- sharing vulnerability information with schools – Operation Encompass (domestic abuse in home) and Operation Endeavour (missing children)
- information sharing with children's social care (CSC)
- producing reports for multi-agency risk assessment conferencing (MARAC)

The initiative aims to:

- create an effective triage process
- provide accurate and timely notifications and reports
- enable more prompt safeguarding interventions for families and children

Intended outcome

The intended outcomes are to:

- improve the speed of sharing information with partners and schools
- reduce time spent by staff on tasks and processes that can be automated
- increase capacity within MASH teams for tasks that cannot be automated, such as risk assessments

Description

Background

MASH provides triage and multi-agency assessment of safeguarding concerns for vulnerable children and adults. Officers and staff working within the MASH team:

- process public protection notices (PPNs)
- risk assess safeguarding referrals
- work with and share information with relevant partners
- attend safeguarding discussions, meetings and conferences

Hampshire and Isle of Wight Constabulary's MASH team were overstretched and faced challenges due to the volume of PPNS exceeding capacity and creating large processing backlogs. During summer 2022 there was a backlog of 1,700 PPNS in the MASH queue affecting the sharing of important risk information with schools and partners.

Commissioning and development

A business case was submitted to acquire development of robotic process automation (RPA), a form of technology that uses 'robots' or 'bots' to automate processes. RPAs are useful when processes are:

- rule-based
- repeated at regular intervals or have a pre-defined trigger
- have defined inputs and outputs
- high volume

Development of RPAs involves mapping the steps taken by humans to complete each task involved in the process that will be automated and creating rules for the robot to follow to mirror them.

Three Blue Prism robotics licenses were purchased for £24,500. This was the minimum number of licenses that could be purchased, despite the force only needing one license. The license covers the use of the robot but not the process development.

The force has an internal robotics team that assisted with the development of the automation processes and provides ongoing support. The mapping of the automation process was completed by the internal robotics team for the first four processes, with the fifth being initially developed by an external provider. This was achieved by using subject matter experts (MASH coordinators) to map and test the process, helping to ensure the automation was as efficient as possible. An external provider was chosen for the fifth process due to a lack of capacity in the internal RPA team and the need to progress the work in a timely manner.

Following the development of a process, two weeks of intensive support are delivered by the robotics team. This helps with the initial delivery and implementation of process and trouble shoots any issues that may arise. Following this intensive support stage, any subsequent issues are routed through the ICT portal and are picked up by the robotics team.

The force now has five automation processes in place, with a further two planned in late summer to autumn 2025. The processes are discussed in more detail in turn below.

Risk referral form - task queue prioritisation

Following feedback from His Majesty's Inspectorate of Constabulary and Fire and Rescue Services (HMICFRS) during an inspection, an automation process was created that scans PPNs in the MASH task queue within Niche. This process identifies which PPNs have children recorded within them and flags the task header with a title which includes 'with children' or 'without children', aiding prioritisation.

Operation Encompass

Operation Encompass is a collaborative initiative between police forces and schools aimed at supporting children who experience domestic abuse. When police attend an incident of domestic abuse where children are involved, the designated safeguarding lead (DSL) at the child's school is notified to ensure that the child receives immediate support and care from trained school staff.

PPNs contain a section to record details of any children within a household or involved in an incident, along with a drop-down list of all schools within the force area. The robotic process identifies PPNs with children attached, locates the name of the school they attend, and cross-references with a spreadsheet that contains the contact email for the DSL of that school. An email is generated with the date of the incident, who was involved, and the information provided in a

section of the PPN containing the voice of the child. This process was developed to prevent data breaches as it avoids sharing the entire PPN which includes information about other people.

The generated email is automated daily at 6am to ensure they are received by the DSL before the start of the school day.

Operation Endeavour

Operation Endeavour aims to identify missing children and share that information with schools. The robotic process is the same as Op Encompass with the notification sent to the DSL of schools every morning.

The robotic processes for Operation Encompass and Operation Endeavour are only responsible for generating the notifications to aid with early notification and support. The MASH team remain involved in assessing the risk of the PPNs. Additionally, the robot records whether the process has been successful or not and shows where any exceptions have occurred on a log entry in Niche. If an exception is recorded on Niche, this prompts staff to carry out the process manually within the MASH team to reduce delays.

Information sharing with CSC

CSC request information to inform their assessments following incidents where there is concern that a child has or is likely to suffer harm. These requests are generated through email and ask for information about the family or people involved. Coordinators create a record on Niche, linking the people that information has been requested about, and task the robot to trigger a report.

The robot reviews the task queue within Niche every 30 minutes during working hours. For each task, a report is generated detailing relevant history of incidents recorded against those people requested. The information is mapped to include certain crime types (such as domestic abuse) and incidents over a set period of time. The report is tasked back to the MASH team and manually checked by the MASH coordinator who can redact any information that is not relevant. The report is then shared via email with CSC.

MARAC

MARACs are a multi-agency response for high-risk domestic abuse victims that combines up-to-date risk information with a comprehensive assessment of the victim's needs. It identifies the actions needed to keep them safe and enables appropriate services to be put in place for all those involved.

Hampshire hear approximately 250 to 300 high-risk domestic abuse cases a month during the MARAC process.

The robotic process follows the same principle as information sharing with CSC, by creating a report detailing relevant police history of the victim or perpetrator and any associated children. The robot also includes whether there have been previous MARAC meetings including dates, what safeguarding has taken place and an update regarding any police action and investigation.

Once completed by the robot, this is manually checked and redacted by a coordinator and Police National Computer or Police National Database results are added.

Training

There was no formal training for officers and staff in using the RPA processes due to their simplicity. Officers and staff use a process chart and can tick a specific task box for the relevant robot to work through, thereby cutting out a significant part of the manual process. Additionally, the staff who were selected to be involved with the development of the processes and to help test them were able to cascade their knowledge within their teams.

Overall impact

- Faster sharing of safeguarding concerns with partners.
- Ability for schools to intervene at early stage where children identified at risk.
- Reduction of MASH queue and ability to identify where children have been present at domestic abuse incidents.
- Improved time savings and efficiency for staff – this was estimated by working out the average amount of time it takes officers and staff to do the process manually versus the average amount of time the RPA takes to do the same process:

- Operation Encompass and Operation Endeavour – it is estimated that the RPA saves at least 5 minutes of staff time per PPN review
- information sharing for CSC – it is estimated to save over 25 minutes of staff time per report depending on complexity

Learning

- A challenge has been securing the money and development team within the robotic automation team. The process of developing the robotics and implementing was straightforward.
- It is important to have subject matter experts to help test the robotics at an early stage to support the process.
- Understanding and accounting for how information is shared in automated process is very important. For example:
 - When the automation was first introduced for Operation Encompass, the entire PPN was sent to the DSL. This was changed to an email notification with a subset of information due to potential data breaches due to the amount of information on the PPN about other people.
 - The force is also working alongside another force but have noted that because of differences in their processes, the robotics need to be developed differently. For example, the other force links children to the school within Niche but this can create data breaches if that child moves school. Therefore, the robotic needs to involve an additional process to prevent this.
 - Updates to PPNs can disrupt the automation, resulting in the force having to revisit the robotic process and repurpose the automation. However, this is often fixed in the same day.

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