Police and Crime Commissioner North Yorkshire

Hi Tech Crime Unit

Final with responses Report

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1 Briefing Report on HTCU Review

Internal Audit has undertaken a review of current processes that are in place for the High-Tech Crime Unit (HTCU) to deliver analytical assistance to colleagues within North Yorkshire Police (NYP).

The HTCU are located at Newby Wiske and provide computer based analysis of images that have been seized on data storage devices as part of an investigation. Although the data they work with covers many areas, the majority deals with images of an indecent sexual nature, often including children.

The review looked at:

- the ways in which the seized data was submitted
- how the submission was initially scored
- how submissions were managed
- staff welfare

This briefing report highlights the observations that were made as well as a table of recommendations that NYP may wish to consider.

2 Observations

Submissions

During the review interviews were held with a number of detective inspectors from across NYP who were responsible for authorising the submission of evidence to the HTCU for analysis.

The feedback from these interviews was positive with a number of supporting comments regards the unit being made, most notably on the willingness of staff to discuss cases in an advisory capacity before the submission had been sent.

It was highlighted that recent changes to the submission document had improved a number of processes at the front end of the investigation. This was identified as being due to the change in questions on the document which asks the Officer in the Case (OIC) to provide as much evidence to help support the submission.

The inspectors also noted that by the time it was passed to them for authorisation it had been effectively checked twice, once by the OIC and secondly by a supervisor (typically a sergeant). This change in process had in their opinion considerably reduced the number of submissions that the inspector either has to return to the OIC for more evidence or reject due to the submission not being appropriate to the case.

A suggestion was made during these interviews on whether or not a scoring matrix could be provided to them to help in their authorisation process. This would provide a more scientific edge to the review process as well as allow the inspectors to understand what more evidence may be needed to ensure that the seized item attains sufficient priority to be examined. This process may also benefit from having a recognised HTCU champion within each Safer Neighbourhood area who can deal with any queries or direct cases to the appropriate individuals.

Adoption of this process may also save time as an inspector would be able to pass back to the OIC quicker than the initial HTCU process would do.

It should also be considered whether it is possible to provide a triage process locally, undertaken by trained staff members who as part of their duties act as a local specialist and deal with cases that have been scored low during the local authorisation process. Their role could be to provide targeted analysis in a similar way to how mobile phone checks can be undertaken.

It was also highlighted by the inspectors that they would like an estimation of the timeframes for when the analysis is expected to be started and completed. This would then allow the OIC to more accurately manage the case, consider charges and bail proceedings.

Submission Scoring

The current process utilises an NPIA risk matrix to provide a score for each submission. The review found that the HTCU manager personally undertook all the initial scoring of submissions once they had been received into the HTCU mailbox as scrutiny is provided by the inspector at an operational level, the scoring undertaken by HTCU assigns the submission a priority level and therefore does not rely on professional judgement. Internal Audit would recommend that this process be delegated to another member of the HTCU team. This would free up the HTCU manager to deal with other areas.

It would however be recommended that the HTCU manager dip sample both accepted and rejected submissions to ensure that the relevant guidelines are being applied.

Submission Rejection

Following the NPIA guidelines it was noted that if the submission does not attain the minimum level to be analysed, the case should not be accepted by HTCU. The review has highlighted that currently HTCU are still accepting a number of low scoring submissions onto the case load.

The reason given for this was that HTCU wanted to be seen to be helping operational officers, even if the submission was of a low level. In reality these cases were found to drop to the bottom of the priority list. This then extended the number of jobs on the list affecting the deficit ratio (the figure used to illustrate the discrepancy between the number of cases submitted compared to the number completed each month) that is currently part of the department's performance figures.

This process is also unproductive operationally as these low scoring submissions were not being analysed by HTCU. This resulted in the case being progressed by the OIC without the submitted item having been considered.

Submission Completion

Due to the number of items that are pending analysis, the HTCU should undertake a realistic assessment of the time frame for completion of each case. This would enable an

OIC to be in receipt of all the information and consider how this may affect an ongoing case.

During discussions and interviews it was reported that there is a disconnect between what level of investigation HTCU can undertake and what actually needs to be completed for the investigation. The HTCU analysts currently provide a very high level of forensic investigation on devices that have been submitted, checking and analyse every picture which has not been recognised by the gallery software (images that have already been documented).

HTCU also rely in many cases on the OIC attending at Newby Wiske to help facilitate the viewing and grading of images, as the current HTCU practice is to review each unidentified image. The OIC will travel from their home station daily to undertake this work.

The Detective Inspector who oversees HTCU stated that it may be necessary to rely more on the OIC initial assessment at the beginning of case. This could mean that HTCU would search for the items that are specifically needed for a charge rather than a full analysis of the submitted item which is the current practice. This would significantly improve the time frames associated with the completion of analysis.

There are inherent risks with the targeted approach most significantly that material of a more serious nature may not be identified and therefore investigated due to targeted analysis. However if the current process continues with the same staffing levels that there are currently HTCU will be unable to deliver in depth searches of all submitted items and the backlog of cases will continue to increase.

The Force should review this approach to ensure that the level of examination which is undertaken is in proportion to the overall investigation and that management processes are put in place to highlight to HTCU staff what is appropriate and needed for each investigation.

Case Management

HTCU currently rely on an unsupported Access package to record and track submissions and as well as providing limited case management capabilities.

This system is not auditable or protected therefore anyone with access to it can update or delete items. The system is only backed up once a month and any work that had been taken on in the last month would not be saved.

During discussions it was also identified that no checks are made between the list of items that are recorded on the Access database for analysis and the physical exhibits which have been sent to and stored at Newby Wiske. This highlights the potential risk of loss evidence.

Welfare and Vetting

HTCU staff are currently subject to a psychological assessment every year but the manager does not receive any training to deal with welfare issues that may arise during

intervening periods for example knowing what signs to spot if staff were having difficulties. This may become more of an issue if the HTCU is expanded and there are more staff to supervise.

The location of the HTCU should also be subject to review as the building design does not lend itself to the type of work that is undertaken. The HTCU primarily deal with reviewing and analysing extreme and indecent images. Although other officers and departments do come into contact with similar images and evidence, the HTCU are a small team dealing with this on a daily basis. The current office space does not provide the opportunity for staff to get away from the computer for a break easily and compared to some of the more modern office space available at Newby Wiske, the current location does not make for a pleasant working environment. Considerations for any future office moves should include not only security but also the well being of staff.

The review also identified that HTCU staff are only vetted to the standard NYP level for new starters. Due to the nature of the work and the inherent risk of access to evidential items of a serious nature, it would be recommended that consideration be given to HTCU staff also being subject to management level vetting.

3 Recommendations

#	Recommendation	Category of Rec.	Management Action	Action Manager & Completion Date	Satisfactory Response (IA View)
1	Consideration should be given to providing a scoring matrix for Detective Inspectors in districts to help them with the authorisation process of evidential items for submission to HTCU.	Merits Attention	Scoring Matrix available on Digital Forensics subsite within Folder entitled 'Submission Process'	Digital Forensics Manager -Richard Cockerill 06/08/2014 Completed	Yes
2	A review should be considered on whether a triage process could be undertaken locally by specially trained members of staff. The review should consider the elements of this role including undertaking low priority work locally to help reduce the time taken to analyse submissions.	Merits Attention	Instigated meeting with Investigative Hubs project team on 07/08/2014 to discussed opportunities/scope for inclusion of various Digital Forensics processes within the Investigative Hubs. Initial response from the Investigative Hubs team to inclusion of computer forensics processes was fairly negative. DFM and DI Gathercole to discuss audit results with DCS Mason and agree on scope for further work.	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes
3	The HTCU should consider providing estimates of when the work on the submission will be completed by.	Merits Attention	Plans for a new Initial Investigation team (sub-team of HTC Investigators) are underway. This team will utilise growth staff (OPM x 2 HTC Investigators) and aim to process submissions received to completion of SFR stage within a month of receipt of submission to unit. Once this team is in place then estimates of timescales for work may be accurate and deliverable.	Digital Forensics Manager -Richard Cockerill 01/01/2015	Yes

#	Recommendation	Category of Rec.	Management Action	Action Manager & Completion Date	Satisfactory Response (IA View)
4	The initial scoring of submissions, to ascertain their priority level, could be delegated to a member of staff within HTCU rather than being conducted by the manager.	Merits Attention	The submission assessment/ acceptance/strategy process will be performed by HTC Investigators as part of the Initial Examination process team.	Digital Forensics Manager -Richard Cockerill 01/01/2015	Yes
5	The HTCU manager could periodically dip sample submissions and their scores to ensure consistency and compliance with the NPIA guidelines.	Merits Attention	Digital Forensics Manager (DFM) will review all case acceptance / strategy within weekly meeting with Initial Examination team leader.	Digital Forensics Manager -Richard Cockerill 01/01/2015	Yes
6	The HTCU should reject submissions which do not meet the minimum criteria for inclusion onto the case load. This should also be considered in conjunction with local area triage.	Merits Attention	HTCU will reject all submissions that do not meet the minimum criteria for acceptance. Cases which do not meet this minimum acceptance criteria will be discussed with the Investigative Hubs project team, as examples of potential scope for area Computer Forensic capability.	Digital Forensics Manager -Richard Cockerill 06/08/2014 Completed	Yes
7	For NYP to consider undertaking cost benefit analysis on providing a mobile viewing platform or facilities within each district which would enable local OIC to view and grade images without having to travel to Newby Wiske.	Merits Attention	The feasibility of such a service was discussed with the Investigative Hubs project team in meeting in the 07/08/2014. Initial response from the Investigative Hubs team to inclusion of mobile viewing platform was fairly negative. DFM and DI Gathercole to discuss audit results with DCS Mason and agree on scope for further work.	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes

#	Recommendation	Category of Rec.	Management Action	Action Manager & Completion Date	Satisfactory Response (IA View)
8	Consideration should be given by NYP as to what level of analysis HTCU should undertake on each submission. This should include consideration of targeted investigations and analysis of all the images retained on a submitted device.	Merits Attention	DFM currently in planning stage of defining a structured approach to DFU Investigations through the introduction of three levels of examination. These levels will be dependant on factors such as crime type, value of exhibit to investigation and likelihood of pertinence evidence being recovered from exhibit, etc... This approach will include the use of triage and selective examination of exhibits and as such the risks associated with such an approach need to be appropriately defined and accepted at an appropriate level within the Crime Directorate. Targeted examinations are currently performed by the unit in cases which do not require a full investigation, for example when internet history is all the case officer requires to progress their investigation, however this theme will be developed within the 3 levels of examination. In certain cases all images will be reviewed, however a proportionate approach to image review and categorization will be necessary in cases which either contain extremely high volumes of images and/or do no merit this holistic approach. This is necessary in order to keep abreast of increasing demand, exhibit numbers and storage capacity.	Digital Forensics Manager -Richard Cockerill 01/01/2015	Yes

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9	Consideration should be given to the purchase of a case management system which is fit for HTCU purposes. Considerations should include the ability to track workloads, tasking facilities, auditable data and the ability to undertake evidence location checks.	Merits Attention	Ongoing attempts to purchase a case management system cased LIMA have as yet have been unsuccessful in so far as producing a Decision Notice paper that meets that standards required to be accepted. DFM and DI Adrian Gathercole are to complete the Decision Notice appropriately in order to purchase this case management system	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes
10	Periodic checks should be made between the case load recorded on the computer system and the physical evidence stored at Newby Wiske to ensure that they are all accounted for.	Merits Attention	Digital Forensics Exhibit Stores audit to be introduced into Crime Admin Support Officer role. Performed on a quarterly basis. Improved case management system which incorporates a bar coded system will enable system generated audits.	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes
11	Consideration should be given to the location of the HTCU team and whether more suitable accommodation could be found within the estate portfolio of Newby Wiske which may be more conducive to the nature of the work they undertake.	Merits Attention	DFM and DI Gathercole have raised this issue previously and requested via P&F that our accommodation issue be addressed. Current plan to move into HQ Stable Block once Forensic Imaging Unit move out to be progressed with P&F. This accommodation would provide sufficient space to house all of the DFU within one building if Regional Scientific Support – DNA lab staff move into HQ Gate House. DFM has approach P&F and requested a meeting to discuss accommodation move. Meeting scheduled for 23/09/2014	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes

#	Recommendation	Category of Rec.	Management Action	Action Manager & Completion Date	Satisfactory Response (IA View)
12	NYP should consider what vetting level requirements are needed for staff within the HTCU and whether it would be beneficial for staff to be subject to either local management level vetting or the Government's Security Clearance.	Merits Attention	Professional Standards vetting levels to be applied to DFU roles. Any current non-conformance to be addressed and correct vetting levels applied.	Digital Forensics Manager -Richard Cockerill 31/03/2015	Yes

Classification of Recommendations	
Fundamental	Action is needed to address risks that could impact on the organisation's ability to achieve its objectives. Action will typically be organisation-wide and be necessary at the highest level. Other fundamental recommendations will be made in regard to potentially serious breaches of statutory obligations.
Significant	Action is needed to address risks that impact primarily on one major business area or to address lower risks on an organisation-wide basis.
Merits Attention	Action is advised to enhance control, remedy minor breaches of current controls or to improve efficiency.