

UNITED STATES DISTRICT COURT
DISTRICT OF COLUMBIA

UNITED STATES OF AMERICA

Plaintiff,

v.

ROMAN STERLINGOV

Defendant.

No. 21-cr-399 (RDM)

**DEFENSE'S REPLY TO THE GOVERNMENT'S OPPOSITION TO
DEFENDANT'S MOTION FOR EARLY RETURN SUBPOENA TO
CHAINALYSIS, INC. UNDER FED. R. CRIM. P. 17 (C) AND CHAINALYSIS'
OPPOSITION TO DEFENDANT'S RULE 17(C) SUBPOENA**

Introduction

Defendant Roman Sterlingov submits this Reply to the Government's and Chainalysis Inc.'s Opposition to the Defense's Federal Rule of Criminal Procedure 17(c) subpoena seeking early return for five specific requests.

As a preliminary matter, Chainalysis mistakenly styles their Opposition as "Chainalysis' Opposition to Defendant's Motion for Reconsideration of the Court's Order to Quash Rule 17(c) Subpoenas." This is not the procedural posture and there is no such Defense motion pending before this Court. Defendant moves this court for early return on its Rule 17(c) subpoena after this Court quashed its first Rule 17(c) subpoena without prejudice. The Defense's new Rule 17 subpoena seeks the following five specific items for early return from Chainalysis:

1. Access to the Chainalysis Reactor software.
2. The Source Code for Chainalysis Reactor software in all the versions used during the pendency of the investigation in *United States v. Roman Sterlingov* 21-CR-00399-RDM, Federal District Court for the District of Columbia.
3. All Change Logs for Chainalysis Reactor software.
4. The final version of the internal Chainalysis study cited by Hanna Curtis in the webinar "Cryptocurrency Typologies: What You Should Know About Who's Who on the Blockchains" which concluded that roughly 90% of the funds sent through mixers were done so for legal personal privacy reasons.
5. A log documenting all material withheld on the basis of privilege, work-product doctrine, or otherwise.

Defense counsel further requested that all production be in Native File Format unless otherwise agreed to, and that Defense counsel is available for consultation to discuss any issues related to the production of the requested items.¹

All the specific information requested is material and relevant to Mr. Sterlingov's defense and production at trial would needlessly delay the trial because it would require a continuance for the Defense to analyze the Source Code and other specific items requested. The early return items requested are requested in the face of the fact that at the recent *Daubert* hearings Chainalysis was unable to cite a single scientific peer-reviewed paper attesting to the accuracy of Chainalysis Reactor. Furthermore, Chainalysis's expert witness, Elizabeth Bisbee, testified at the *Daubert* hearings that Chainalysis does not know the error rates for its software, nor the rates of false positives or false negatives for its software that is foundational to this prosecution. Therefore, the Defense seeks access to the software, its Source Code, and Change Logs to conduct the review that the Government and Chainalysis should have done before using this software for any investigation.

This Court should deny the Government's and Chainalysis's Oppositions because (1) The requested information is specific, relevant and material for Mr. Sterlingov's defense and production at trial would lead to delays, (2) the Government lacks standing, and (3) Chainalysis's Opposition confusingly mistakes the procedural posture and argues against a non-existent motion.

Background

On May 5, 2023, the Defense issued two subpoenas ad testificandum for Michael Gronager's appearance at the pretrial *Daubert* hearings scheduled for June 16 and 23, 2023.

¹ See Dkt. 155 (attached as Ex. A).

On May 17, 2023, counsel for Chainalysis, William Frentzen, accepted service of the subpoenas via email.

On May 26, 2023, Mr. Frentzen filed a Motion to Quash these subpoenas.

On June 16, 2023, this Court granted the Motion to Quash without prejudice.² At the *Daubert* hearing held on June 16, 2023, this Court also denied other outstanding subpoenas duces tecum and informed Defense counsel that any further subpoenas should be more specific.

On August 2, 2023, the Defense submitted a Motion to Authorize Issuance and Pretrial Return of Subpoena Duces Tecum to Chainalysis Under Fed. R. Crim. P. 17(c).³ This subpoena duces tecum is specifically directed at Chainalysis and is for the production of documents and information in Chainalysis' exclusive possession. It is not related to the subpoenas ad testificandum for any individuals at Chainalysis.

On August 2, 2023, after filing the Motion to Authorize Issuance and Pretrial Return of Subpoena Duces Tecum to Chainalysis Under Fed. R. Crim. P. 17(c), Defense counsel served Mr. Frentzen via email subpoenas ad testificandum for Michael Gronager's and Jonathan Levin's testimony at trial. These subpoenas are unrelated to the present motion.

On August 9, 2023, Defense Counsel served Mr. Frentzen via email a subpoena ad testificandum for Youli Lee's testimony at trial. This subpoena is also unrelated to the present motion.

On August 10, 2023, Mr. Frentzen emailed Defense counsel indicating he is authorized to accept service if the Defense "acknowledges[s] [that] acceptance does not constitute waiver or ability to challenge." This issue is unrelated to the present motion.

² Minute Order, June 16, 2023.

³See Ex. A.

On August 10, 2023, Chainalysis filed an “Opposition to Defendant’s Motion for Reconsideration of the Court’s Order to Quash Rule 17(c) Subpoenas,” confusingly styling their Opposition as one against a non-existent motion.

On August 10, 2023, the Government submitted an opposition to Mr. Sterlingov’s August 2, 2023, Motion to Authorize Issuance and Pretrial Return of Subpoena Duces Tecum to Chainalysis Under Fed. R. Crim. P. 17(c).

This Reply follows.

Argument

The Defense’s subpoena meets all of the requirements outlined in *United States v. Mitchell*, and its progeny. *Mitchell* specifically discusses the requirements for obtaining early production of evidence under Rule 17(c) in federal court in the District of Columbia.⁴ According to *Mitchell*, a party must demonstrate four things: (1) that the subpoenaed materials are evidentiary and relevant; (2) that they are not otherwise procurable reasonably in advance of trial; (3) that the party cannot properly prepare for trial without them; and (4) that the application is made in good faith and does not constitute a “fishing expedition.”

The subpoenaed materials go directly to the scientific accuracy of Chainalysis Reactor, the core blockchain forensic software used to accuse the Defendant. They are only procurable through the subpoenaed party, Chainalysis. Without them, the Defense cannot conduct a complete analysis of the accuracy of the Chainalysis Reactor software that both the Government and Chainalysis have failed to do. This is not a fishing expedition as the subpoena makes only five very specific requests for information.

⁴ *United States v. Mitchell*, 377 F. Supp. 1326 (D.D.C. 1974).

1. The Requested Information is Specific, Relevant, Material and its Pretrial Production is Necessary to Avoid Delay at Trial

Mr. Sterlingov seeks specific, relevant material information related to the accuracy and error rates of the Chainalysis Reactor software. Chainalysis and the Government are both unable to produce any evidence of the scientific accuracy, error rates, false negative rates or false positive rates for Chainalysis Reactor. This work should have been done before any investigation was launched using this software. From the beginning of its defense, the Defense has requested this information.

At the June 23, 2023, Daubert Hearing, proffered Government Expert Elisabeth Bisbee of Chainalysis testified in response to Defense counsel's questioning:

Q. [] You don't have scientific, peer-reviewed papers or anything published anywhere attesting to the accuracy of Chainalysis Reactor, do you?

A. No.⁵

Q. It's your testimony that you don't know whether or not Chainalysis collects any information as to false positives in relation to the Chainalysis Reactor software; is that correct?

A. That's correct.

Q. [] As part of its conservative approach, does [Chainalysis] collect any statistical information on the occurrence of false negatives from Chainalysis Reactor software?

A. Not to my knowledge.

Q. And as you sit here today, can you even just tell me what the statistical error rate is for Chainalysis Reactor?

⁵ TR 128: 16-19 (Cross).

A. I would not.⁶

At the same hearing, proffered Government Expert Witness Luke Scholl of the FBI testified as follows:

Q. Can you cite me any scientific peer-reviewed papers analyzing the accuracy of Chainalysis [Reactor]?

A. No, sir, I cannot.

Q. So, essentially, if I heard your testimony right, your assessment of the accuracy of Chainalysis Reactor is based solely on your experience?

A. Yes, sir.

Q. And you have no scientific paper or any peer-reviewed paper or any kind of academic paper at all that you can point me to that analyzes and validates the accuracy of Chainalysis Reactor; is that correct?

A. That's correct, sir.⁷

Scholl furthered testified that "it is correct that I used predominantly Chainalysis Reactor" in his Bitcoin Fog investigation underlying his expert report.⁸ He further testified that he'd never bothered to check the accuracy of Chainalysis Reactor before using it:

Q. Mr. Scholl, you testified that you weren't familiar with any kind of academic literature or any kind of peer review of the accuracy of Chainalysis Reactor; is that correct?

A. Yes, sir, that's correct.

Q. Before you ever embarked on using Chainalysis Reactor, did you bother to do any research as to the accuracy of Chainalysis Reactor?

A. No, sir, not specifically.⁹

⁶ TR: 119:13-24.

⁷ Transcript of Daubert Hearing ("TR") at 74:11-22 (June 23, 2023).

⁸ TR 74:23-75:1.

Mr. Scholl further testified:

Q. Can you tell me what the statistical error rate is for Chainalysis Reactor?

A. No, sir, I cannot.¹⁰

Q. Can you tell me the rate of false positives when it comes to Chainalysis Reactor?

A. No, sir, I cannot.

Q. Can you tell me the rate for false negatives when it comes to Chainalysis Reactor?

A. No, sir, I cannot.¹¹

Q. And so you just agreed with me that a coinjoin is a potential problem for the co-spending heuristic, correct?

A. In general, yes, sir, I agree with that.

Q. And can you cite me any statistics or any kind of scientific peer-reviewed paper addressing the accuracy of Chainalysis Reactor's detection of coinjoins in a co-spending heuristic analysis?

A. No, sir, I cannot.¹²

Likewise, when it comes to Chainalysis Reactor's behavioral heuristic, its second primary heuristic, Mr. Scholl testified:

Q. [] Are you aware of any scientific validation, any kind of peer-reviewed papers attesting to the accuracy of the

⁹ TR 94: 5-12.

¹⁰ TR 74:2-4.

¹¹ TR 74:5-10.

¹² TR: 79: 15-22.

behavioral heuristic?

A. No, sir, I'm not.¹³

Finally, when it came to Chainalysis Reactor's third primary heuristic he testified:

Q. Is it your testimony here that you really don't understand the intelligence heuristic that's involved in Chainalysis Reactor?

A. I don't know the full extent of what Chainalysis is doing for that heuristic, no, sir.¹⁴

Ciphertrace's Jonelle Still's expert report further confirms the inaccuracies and problems with Chainalysis Reactor software and the Government's and Chainalysis's use of it in this case.¹⁵

Given that neither the Government nor Chainalysis can provide any information as to Chainalysis Reactor's accuracy and scientific validity, this Court should grant Mr. Sterlingov's early return subpoena for access to Chainalysis Reactor, its Source Code, Change Logs, and other requested items so the Defense can do the analysis that should have been done before the United States Department of Justice ever contracted to use Chainalysis Reactor.

2. The Government Lacks Standing to Oppose Defendant's Chainalysis Subpoena

Throughout this case, the Government has repeatedly sought to avoid its constitutional obligations to produce evidence to the Defense under the excuse that the evidence is under the exclusive control of the private vendors that they hired and used to investigate this case. The Defense believes that the Government's evasion of its constitutional discovery obligations by hiding behind private vendors is unconstitutional.

¹³ TR 80: 12-15.

¹⁴ TR 80:24-81:3.

¹⁵ Dkt. 159.

The Government has repeatedly asserted that it cannot force Chainalysis to produce any documents or materials, specifically the Chainalysis Reactor Source Code and Change logs, because the materials are held by Chainalysis and are not in the Government's custody or control.¹⁶ Yet now it claims standing to challenge the Defense's subpoena to Chainalysis. This highlights the dilemma that occurs when Government prosecutors hide behind their private vendors and refuse to produce pertinent materials to the Defense. The Government claims they have no control over the evidence but claims the right to challenge any subpoena to the evidence. This requires the Defense to respond to two oppositions, one from the Government and another from the subpoenaed party. This is unduly burdensome and procedurally unfair under the Fifth Amendment's Due Process Clause. It raises novel issues arising from DOJ's recent addiction to for-profit private vendors acting as law enforcement investigators.

A review of the case law shows that this is a new issue in the federal criminal context, and the issue of the Government using private vendors to conduct criminal investigations has never been addressed in this District in this context. In the past, Government agencies conducted investigations and the federal government did not substantially contract out its core investigation operations.

If the information and materials requested by the Defense are not in the custody and control of the Government, and the Government repeatedly claims they have no custody or control of the requested information, then they do not have standing to challenge the Defense's subpoena.

3. Chainalysis Opposes a Non-Existent Motion

Chainalysis incorrectly opposes a non-existent motion for reconsideration. On these grounds alone this Court should discard Chainalysis's opposition. As discussed above in the

¹⁶ Government Ltr. to Defense Counsel (Jul. 28, 2023).

background section, this Court granted Chainalysis's previous motion to quash Defendant's Rule 17 (c) subpoena without prejudice. When so doing, this Court stated that the Defense was welcome to submit specific Rule 17(c) subpoenas to this Court. The subpoena at issue here is such a specific Rule 17(c) subpoena making only five particular requests.

4. Chainalysis has the Same Constitutional Discovery Obligations as the Government

Chainalysis acted as an agent of the Government throughout the course of this investigation, performing work traditionally done by law enforcement. There is no clear distinction here between work done by the FBI, IRS and Chainalysis investigators. Therefore, Chainalysis is bound by the same constitutional rules as the United States Department of Justice. Otherwise, the Government could avoid its *Brady* obligations simply by hiring private contractors.¹⁷ The Chainalysis Reactor Source Code and Change Logs are arguably *Brady* material. The Defense believes that an examination of the Source Code will reveal the full extent of the Junk Science being used to wrongfully accuse Mr. Sterlingov of crimes he never committed.

The Chainalysis Reactor software applied over inclusive clustering heuristics that generated inaccurate conclusions upon which the Government is relying to wrongfully accuse Mr. Sterlingov of Bitcoin Fog's operation. The accuracy and scientific validity of the Chainalysis Reactor software is core to this case, and the Government does not have any corroborating evidence linking Mr. Sterlingov to the operation of Bitcoin Fog.

At present, Mr. Sterlingov's Defense team is unable to completely review, scrutinize, or analyze the clustering methodologies that the Government has relied upon to wrongfully accuse him of money laundering. This dilemma highlights why the Government should not be allowed

¹⁷ See e.g. *Brady v. Maryland* 373 U.S. 83 (1963).

to evade its constitutional obligations to produce by hiding behind private forensic vendors. Chainalysis acted as an agent of the Government throughout this investigation and has a duty to disclose the computer code that is at the core of this prosecution.

On August 8, 2023, the Defense submitted a detailed expert report from Ciphertrace Inc., a leading blockchain analysis company in the United States and a division of Mastercard. Ciphertrace's expert report identifies the limitations of blockchain analysis and concludes that:

Blockchain forensics should only be used to generate investigatory leads. Standing alone, they are insufficient as a primary source of evidence. What is striking about this case is the conclusions reached without any corroborating evidence for the blockchain forensics.

The blockchain forensics and tracing tools used in this case were misused to erroneously conclude that Mr. Sterlingov was the operator of Bitcoin Fog when no such evidence exists on-chain.¹⁸

Without access to the Chainalysis Reactor software, and the opportunity to examine its Source Code and Change logs, Mr. Sterlingov is unable to put on a complete defense.

Conclusion

This Court should grant the Defense's Motion to Authorize Issuance and Pretrial Return of Subpoena Duces Tecum to Chainalysis, Inc. Under Federal Rule of Criminal Procedure 17(c) in its entirety. The specific materials requested by the Defense from Chainalysis are integral to Mr. Sterlingov's defense. The Government does not have standing to challenge this subpoena duces tecum to Chainalysis, and if this Court finds that the Government does in fact have standing, then the Government should be required to produce all the requested information because it is *Brady* material.

¹⁸ Dkt. 159-1 Ciphertrace Expert Report (Aug. 8, 2023).

Dated: August 17, 2023
Lake Tahoe, California

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that on the 17th day of August 2023, the forgoing document was filed with the Clerk of Court using the CM/ECF System, and sent by email to the attorneys for the Government listed below:

s/ Tor Ekeland

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