

Trial Hearing
WITNESS: CAR-D30-P-4864

(Open Session)

ICC-01/14-01/18

1 International Criminal Court
2 Trial Chamber V
3 Situation: Central African Republic II
4 In the case of The Prosecutor v. Alfred Rombhot Yekatom and Patrice-Edouard
5 Ngaïssona - ICC-01/14-01/18
6 Presiding Judge Bertram Schmitt, Judge Péter Kovács and
7 Judge Chang-ho Chung
8 Trial Hearing - Courtroom 1
9 Tuesday, 27 February 2024
10 (The hearing starts in open session at 10.04 a.m.)
11 THE COURT USHER: [10:04:43] All rise.
12 The International Criminal Court is now in session.
13 Please be seated.
14 PRESIDING JUDGE SCHMITT: [10:05:09] Good morning, everyone.
15 Court officer, please call the case.
16 THE COURT OFFICER: [10:05:15] Good morning, Mr President, your Honours.
17 Situation in the Central African Republic II, in the case of The Prosecutor versus
18 Alfred Yekatom and Patrice-Edouard Ngaïssona, case reference ICC-01/14-01/18.
19 And for the record we are in open session.
20 PRESIDING JUDGE SCHMITT: [10:05:30] Thank you very much.
21 I ask for the appearances of the parties.
22 MS HENDERSON: [10:05:36] Good morning, Mr President, your Honours. The
23 Prosecution is represented today by Ms Manochitra Prathaban, Mr Yassin Mostfa,
24 Mr Kweku Vanderpuye and myself, Claire Henderson.
25 PRESIDING JUDGE SCHMITT: [10:05:50] Thank you. Ms Massidda next.

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1 MS MASSIDDA: [10:05:53] Good morning, Mr President, your Honours. Good
2 morning to everybody in the courtroom.

3 For victims of the other crimes, appearing today Mr Orchlon Narantsetseg,
4 Ms Mouhia Asso and myself, Paolina Massidda.

5 PRESIDING JUDGE SCHMITT: [10:06:10] Thank you. Mr Suprun is next.

6 MR SUPRUN: [10:06:11] Good morning, Mr President, your Honours. The former
7 child soldiers are represented by myself, Mr Suprun. Thank you.

8 PRESIDING JUDGE SCHMITT: [10:06:14] Thank you. I turn to the Defence,
9 Ms Dimitri or Ms Bafadhel, I don't know.

10 MS DIMITRI: [10:06:21] Good morning, Mr President. Mr Yekatom is present in
11 the courtroom. He is represented today by Ms Maider Cordova, Ms Alexandra Baer,
12 Ms Sarah Bafadhel, myself Mylène Dimitri, and Mr Florent Pages-Granier, who is
13 going to be in charge of this witness.

14 PRESIDING JUDGE SCHMITT: [10:06:41] Thank you very much. I turn to
15 Mr Knoops.

16 MR KNOOPS: [10:06:44] A very good morning, Mr President, your Honours.
17 Good morning, everyone in the courtroom, and good morning, Mr Witness.

18 Mr President, we have lined up our whole CDR team, so to speak: Ms Alexandre
19 Desevedavy, Mr Michael Rowse, Ms Marie-Hélène Proulx and Kenza Ayadi.

20 And Mr Ngaissona is here as well, Mr President.

21 PRESIDING JUDGE SCHMITT: [10:07:02] Thank you very much.

22 And most importantly, of course, we have a witness, an expert. This is Mr Brown.

23 Good morning, Mr Brown, a warm welcome from this side of the Chamber.

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25 (The witness speaks English)

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1 THE WITNESS: [10:07:20] Thank you. Good morning, your Honours.

2 PRESIDING JUDGE SCHMITT: [10:07:23] Mr Brown, there should be a card on the
3 desk in front of you with a solemn undertaking to tell the truth. Please be so kind
4 and read this card out aloud.

5 THE WITNESS: [10:07:26] I do solemnly declare that I will speak the truth, the
6 whole truth and nothing but the truth.

7 PRESIDING JUDGE SCHMITT: [10:07:31] Thank you very much.

8 You know, and you are aware, that everything we say here is written down and
9 interpreted in different languages, so we all have to speak at perhaps a little bit of a
10 lower pace than we would normally do. And please also wait with your answers,
11 perhaps two or three seconds, so that the interpreters can catch up.

12 I give now the floor to Mr Knoops. And Mr Knoops, you understand have you to
13 establish the conditions for Rule 68(3).

14 MR KNOOPS: [10:08:03] Of course, Mr President. Thank you very much.

15 QUESTIONED BY MR KNOOPS:

16 Q. [10:08:14] Good morning, Mr Brown, it's a pleasure to see you again and we
17 appreciate your participation in this case.

18 A. [10:08:17] Thank you.

19 Q. [10:08:19] My plan with the examination, after having fulfilled the requirements
20 for the admission of your report, is, first of all, to go to your professional history —
21 my first topic this morning — and then I will go into the requirements of a cell-site
22 analysis in general.

23 I will also go into the forensic standards of CDR formats. That will also be a major
24 topic in my examination.

25 I will also go into, as next topic, the forensic applications of the business records

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1 exception rule.

2 I will briefly touch upon one question on geolocation, but then I go into the topic of
3 attribution. And, finally, my eighth topic, I will close with the cell-site analysis
4 limitations.

5 A. [10:09:28] Okay.

6 MR KNOOPS: [10:09:29] That's the outline and I understand, Mr President, that we
7 have for today two hours.

8 PRESIDING JUDGE SCHMITT: [10:09:35] Yes. You know, I wanted to know if it
9 is -- if you can foresee already, if we need the afternoon session at all costs, because it
10 would, of course, be better for everyone, specifically for me, if I have to say, but also
11 for Mr Ngaissona and Mr Yekatom, not to have to stay so long into the afternoon.
12 You are aware that we have, tomorrow, two sessions and then we would have the
13 whole Thursday and Friday.

14 So when you can tell me and assure me that you can make do without this afternoon's
15 session, it would be to the benefit at least of many of us in this room.

16 MR KNOOPS: [10:10:15] Mr President, our team has no objection to the programme
17 the Court has in mind. I will definitely need tomorrow morning the two sessions
18 and might need part of Thursday morning, but that will be short. And we will try to
19 stay within the six hours we have anticipated.

20 PRESIDING JUDGE SCHMITT: [10:10:34] And then I would like to ask you for the
21 Yekatom Defence.

22 MR PAGES-GRANIER: [10:10:45](Interpretation) Thank you, your Honour. We
23 thought five hours of examination for this witness. We think it's possible, but it's not
24 a promise, that we could have two sessions -- that's to say, three hours.

25 PRESIDING JUDGE SCHMITT: [10:10:57] The Prosecution is now decisive, so to

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1 speak. You know, I'm not really good in counting, however, if you tell us you need
2 four or five sessions, it's becoming tight.

3 MS HENDERSON: [10:11:11] I don't believe so, your Honour. It does depend on
4 the examination of the other two parties, but I am rather confident we can stick to our
5 estimation of three hours.

6 PRESIDING JUDGE SCHMITT: [10:11:24] Then let's -- I think we can give it a try, I
7 would say, and if we see on Thursday that it's getting tight, we have to extend hours,
8 simply.

9 Mr Knoops, please continue.

10 MR KNOOPS: [10:11:39] Thank you.

11 Q. [10:11:41] Mr Brown, first of all, going into certain formalities which are
12 required to have your report admitted into the record of the case, can you please state
13 for the record again your name, full name, and your date of birth.

14 A. [10:12:00] Duncan Fergus Brown, 16 July 1958.

15 Q. [10:12:06] Mr Brown, it's correct you prepared a report on behalf of the
16 Ngaissona Defence team on 23 November of last year, called "Interpretation and
17 Limitations of Call Data Records"; is that right?

18 A. [10:12:26] Yes, that's correct.

19 Q. [10:12:27] Did you have a chance to recently review your report and its annex?

20 A. [10:12:33] Yes, I have read them recently.

21 Q. [10:12:36] And did you observe any inaccuracies or any errors which you're able
22 to rectify in this report?

23 A. [10:12:49] Only one or two spelling mistakes.

24 Q. [10:12:52] Thank you. Mr Brown, were you in any way while preparing your
25 report influenced by the Defence or asked to alter any of your conclusions?

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1 A. [10:13:05] No, I was not.

2 Q. [10:13:08] Do you have any objection to the admission of your report, its
3 annexes, as evidence before the Chamber?

4 A. [10:13:19] No, I do not.

5 PRESIDING JUDGE SCHMITT: [10:13:23] Well, I think, yeah --

6 MR KNOOPS: [10:13:26] For the record, the ERN of the report is

7 CAR-D30-0018-0001, and the ERN of the annexes is CAR-D30-00018-0028.

8 PRESIDING JUDGE SCHMITT: [10:13:45] Then for the record let me state that the
9 precondition -- the conditions to fulfil Rule 68(3) applications are fulfilled for the
10 report from 23 November 2023, plus the annexes to the report.

11 MR KNOOPS: [10:14:04] Thank you.

12 Q. [10:14:06] Now, Mr Brown, let us first turn to your professional background.
13 Even though your CV has been submitted as annex 1 to your report, I will ask you
14 some questions about your personal background and starting with your current
15 profession.

16 A. [10:14:25] So currently I work as an expert witness in the field of cell-site
17 analysis.

18 Q. [10:14:35] Could you briefly describe what your duties and responsibilities are
19 in this role?

20 A. [10:14:46] Yes. I accept instructions either from the prosecution, from the
21 police forces or from defence solicitors to consider call data records and address the
22 issues of interest to the parties instructing me.

23 Q. [10:15:07] Thank you. We notice, Mr Brown, on page 5 of your report, that you
24 joined the telephone company Vodafone in 1990.

25 A. [10:15:24] Yes, I did.

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1 Q. [10:15:24] For the design and construction of a new radio base station or stations
2 throughout the UK. In 1998, you became the national implementation manager of
3 Vodafone in the UK, and could you briefly explain what this function entailed, being
4 the UK national implementation manager of Vodafone?

5 A. [10:15:55] Yes. I was responsible for a team of people who were developing the
6 network. So the function included the design of the radio base stations and their
7 implementation, so their introduction into service for the whole network, and to deal
8 with any quality issues that arose from the introduction of those new base stations.

9 Q. [10:16:29] You left Vodafone in 2002 and, what I observed in your CV in 2004,
10 you became, what you say, a full-time expert witness.

11 A. [10:16:42] That's correct.

12 Q. [10:16:44] Can you briefly explain to the Chamber what type of, if any, forensic
13 education you received to be qualified as, what you say, a full-time expert witness in
14 this area?

15 A. [10:17:04] So my expertise in the subject matter, of course came from my career
16 at Vodafone, who had provided the technical training and understanding of the
17 network, and of course the day-to-day exposure to the technical issues surrounding
18 development of mobile phone networks. To become an expert witness, I undertook
19 a series of training courses provided by a specialist training company in the UK called
20 Bond Solon and those modules covered aspects such as preparing an expert report,
21 preparing witness statements, gathering data and presenting evidence in court. So
22 all of the, if you like, processes relevant to being an expert witness.

23 Q. [10:18:02] Mr Brown, this institution Bond Solon, is this an official recognised
24 forensic educational institute in the UK?

25 A. [10:18:23] I don't believe I know if it's recognised as that. It is certainly a

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1 well-known training company for the legal profession, so they are specialist legal
2 trainers and, indeed, the training was delivered by practising solicitors and counsel.

3 Q. [10:18:48] As far as you know, do members of the police force also join this
4 course of Bond Solon?

5 A. [10:18:57] Not on the particular course that I attended, but they may well do;
6 I don't know.

7 Q. [10:19:03] Yeah. I notice that in 2019, Mr Brown, you followed an advance
8 course in forensic analytics. Can you please explain to the Court what this advance
9 training entailed.

10 A. [10:19:34] That's referring to a company called Forensic Analytics. They are a
11 company that were founded, it happens, by a former colleague of mine to create the
12 specialist software that is now extensively used by practitioners in my area of
13 expertise.

14 So they created this specialist software called Cell Site Analysis Suite, or CSAS for
15 short. It's specialist software that processes the raw call data records into a standard
16 format and provides a number of functions around statistical analysis of that data and
17 allows geolocation mapping.

18 So it was a training that they provided in the use of their specialist software.

19 Q. [10:20:46] In 2009, you were the founding partner of Forensic Partners Limited
20 in the UK?

21 A. [10:20:54] Yes.

22 Q. [10:20:54] And I noticed that in your CV, that's on page 3, CAR-D30-0018-0030 --
23 I noticed that you, in that role, also were employed by police authorities. Can you
24 explain to the Chamber how many times, approximately, the police authorities
25 approached you for your expertise in the UK?

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1 A. [10:21:33] For prosecution work, I would estimate somewhere between 300,
2 maybe 350, cases.

3 PRESIDING JUDGE SCHMITT: [10:21:47] Mr Knoops, we have the CV of the
4 expert — and allow me to say, it's an impressive CV and I think nobody will put into
5 doubt the competence of this expert — so, you know, you simply can go into the heart
6 of the matter.

7 MR KNOOPS: [10:22:21]

8 Q. [10:22:22] Mr Brown, I'm not going through into detail of your -- into your CV
9 anymore, but I notice that you worked for -- as -- in several instances as an expert for
10 international criminal tribunals, among which the Special Tribunal for Lebanon.
11 What I'm specifically interested in is to ask you what type of research, expertise, you
12 gave in connection to specifically your work before the international criminal
13 tribunals, like the Special Tribunal for Lebanon.

14 A. [10:23:08] All of my work was related to call data records and to the -- either to
15 the attribution of mobile phones to named individuals or to geolocation analysis to
16 understand the location or movements of those mobile phones at particular times.

17 Q. [10:23:36] Yes. In your annex to the report on the pages 4 and 5, I calculated
18 that you worked in 14 cases as an expert for the prosecution, 2007 till 2022, and in
19 eight out of the 14 cases mentioned in your annex you performed a cell-site analysis.
20 Can you explain to the Chamber why such a cell-site analysis was appropriate in
21 those cases to perform?

22 A. [10:24:20] So the cases I've included in the annex are just cases of particular note
23 rather than any specific function. The normal work for a prosecution case is to
24 consider propositions provided by the police, typically in the format does the
25 evidence support the proposition that the user of mobile phone ABC was at the

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1 offence location at around the time of the offence? So that would be a typical
2 inquiry.

3 And, typically, there would be some statistical analysis of the call data records to
4 consider a pattern of use of that mobile phone — is that use standard or
5 nonstandard — and then some sort of geolocation analysis.

6 So in all of those cases, there would have been geolocation analysis and some of those
7 would also have had the statistical analysis as well.

8 Q. [10:25:32] Mr Brown, in those cases where you were instructed by the
9 prosecution Crown service in the UK, what material were you provided by the Crown
10 service to assess the existence of such patterns or not?

11 A. [10:25:55] So, in the UK, the police force themselves obtain the call data records
12 from the network operators, and so they would provide to me those raw files of the
13 call data records. So my first task would always be to process those call data records
14 into a standard format.

15 Q. [10:26:26] Is it for you, forensically, a requirement to yourself receive the raw
16 data? Is this a prerequisite for your analysis?

17 A. [10:26:40] It is normal practice that -- so in the UK, the police forces usually have
18 designated specialist officers who obtain the data. So, some of the forces have direct
19 access to those databases. Generally, they would put in a request to the network
20 operator, and, typically, the network operators all have specialist staff dedicated to
21 producing the call data records and providing them to the police force.

22 It is not always provided to me, but, certainly, if I wish, they will provide the witness
23 statements from the officers that have provided those call data records, telling me
24 what they had asked for and producing those files into evidence for the court, and
25 those are then the files that are provided to me for my analysis.

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1 Q. [10:27:42] And in case you were not provided with such raw data nor with a
2 witness statement of the officer who obtained them, would it have any consequences
3 for your inquiry or your conclusions in your call cell analysis?

4 A. [10:28:08] Well, it's simply not possible to carry out my analysis without those
5 raw call data records. In a very limited number of cases, it may be possible to
6 provide some generalised support or information, but any kind of analysis must have
7 those call data records provided to me.

8 Q. [10:28:34] I notice, Mr Brown, in your CV, where you mentioned 14 notable
9 prosecution cases, the case of R. v. Iqbal, the Court of Appeal case in 2008, you
10 worked on as an expert. It's page 5 of the annex. It's CAR-D30-0018-0032. And
11 I noticed that in the summary you gave pertaining to this case, you say:
12 "The grounds for appeal included cell-site issues related to the work of the original
13 prosecution expert and the integrity of the call data records relied upon. The appeal
14 was rejected."

15 Now, my question, Mr Brown, is the following: If you were to assess the integrity of
16 call data records, what would be the steps for you to go through to conclude whether
17 these meet the standard of forensic integrity or not?

18 A. [10:29:56] If I am asked to consider the forensic integrity, I would wish to
19 consider the chain of custody of the call data records provided to me. As I said, that
20 is, the records are normally obtained by the police force for the prosecution and,
21 hence, there would be a witness statement telling me how they had obtained those
22 records.

23 I should perhaps add that the records are normally provided in more than one format.
24 The evidential call data records are typically provided in a PDF format. PDF
25 meaning, portable document format, which is a format that cannot readily be edited,

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1 or can be made secure so that they cannot be edited.

2 The records provided to me cannot be in that format because I simply cannot process
3 them in that secure format, so the records provided to me are in a less secure format.

4 But if I have any questions or queries on their integrity, I can refer to the PDF format
5 to test my concerns.

6 Q. [10:31:31] Absent these two conclusions, these two criteria, so you don't have
7 certainty about the chain of custody, you don't have the CDRs provided to you in a
8 PDF format, would you be able to base your report on information CDRs which were
9 not provided under these two conditions?

10 A. [10:32:09] It's certainly possible for me to provide an analysis. The strength of
11 conclusions I might be willing to draw may, of course -- I might be more circumspect
12 in my conclusions if I was uncertain of the integrity of the data.

13 In smaller datasets, it is perhaps the easier -- it is perhaps harder to show that
14 integrity. In larger datasets, certainly you can get a feel of whether they appear to be
15 what they purport to be. So not impossible, I just might be more circumspect in my
16 answer if I was uncertain.

17 Q. [10:33:02] In the case I started with, the R. v. Iqbal case of 2008 before the Court
18 of Appeal, you apparently concluded that the call data records met the standard of
19 integrity, forensic integrity, and, as a result, the appeal was rejected. Is it my
20 understanding, Mr Brown, that you were able to assess the call data record in that
21 case in terms of integrity based on these two conditions?

22 A. [10:33:44] Yes, the particular issue in this case was the defendant's expert
23 position was that the call data records had been manipulated, and it was based on the
24 fact that the first call data records provided had what was an obvious error and
25 immediately that had been reported to the network operator. They had provided a

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1 second set of call data records without those issues present.

2 PRESIDING JUDGE SCHMITT: [10:34:22] Mr Knoops, there is, of course -- I know
3 where you're heading at, but there is of course -- it might, of course, be of interest
4 what "forensic integrity" means. Because of that, I did not intervene. However, we
5 should not discuss further a case from 2008 that's geographically completely different
6 located than the case we are dealing here with. So I would ask you to come more to
7 the case we have here in front of us and the material that the expert has processed
8 here.

9 MR KNOOPS: [10:35:02] Well, Mr President, that was -- my plan was indeed to,
10 based on this case, ask Mr Brown, by way of illustration, how forensic integrity works
11 in "your" field.

12 Q. [10:35:13] Mr Brown, I understand that for you forensic integrity is these two
13 conditions that you just stipulated, or are there any other criteria you would look at
14 before saying the call data records are forensically integral and can be used in your
15 report?

16 A. [10:35:36] It is a normal part of my work to examine the call data records to see
17 that they are as I would expect them to be. It is very rare to spot errors in those call
18 data records, and for the -- in my jurisdiction in the UK, the integrity is normally
19 accepted. So it is just part of my work to always consider what I see in front of me
20 and to highlight if I think there are any issues with that data.

21 Q. [10:36:28] Suppose the requirement is there, the chain of custody is checked by
22 you and you also have the information from the police, or you have the raw data, you
23 have the PDF files and you can start working, what would be the normal steps to take
24 for cell-site analysis? What would you do to present the cell-site analysis to a court
25 of law?

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1 A. [10:37:04] So I would take the call data records provided to me in their raw
2 format and to process them. The software I referred to is very proficient at
3 processing all of the standard formats of call data records. But, of course, it -- it is --
4 sometimes, I wish to present it with nonstandard call records. In that case, I may
5 need to physically rearrange some of the data in those call records or to change some
6 of the titles of the column headings so that the software is able to recognise which
7 piece of the data do what. So processing the data is the first part. And once it is
8 processed, I will check that data to see that it is correctly processed. And it is from
9 that process data that I'm then able to produce call tables or call sequence tables that
10 generally are used in a court or by the instructing teams, and then any other work
11 that I'm asked to do, be it the statistical analysis of that call data or the geolocation
12 related to that call data.

13 Q. [10:38:40] Mr Brown, in this context, being asked to perform a cell-site analysis,
14 is part of this analysis also to build a so-called user's profile?

15 A. [10:39:01] Yes. So it is certainly a very common activity that I will look at the
16 process data in a number of ways to understand how this phone was used, was it
17 used for a lot of sending text messages or was it just for data connections, what time
18 of day is this phone being used, which of the cell sites of the network are most
19 commonly used, who are the contact numbers of this phone. All of these things are
20 the basic analysis that give me some understanding of the profile of the user -- the
21 user's profile.

22 Q. [10:39:50] If you in your research would come across any changes or anomalies
23 in the CDRs, would you document those anomalies in your report?

24 A. [10:40:09] Yes, depending on any anomalies I found. I might obviously first
25 inquire if there was an alternative source of that data. It is commonly the case that

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1 multiple files are obtained by the investigators and it may be that there's an
2 alternative source I would be able to use. If not, I would simply note any anomalies
3 I found within the -- my report.

4 Q. [10:40:38] Mr Brown, would part of your analysis in this regard also be the
5 assessment how the data were transferred -- the CDR data were transferred to a
6 central server that provides data storage?

7 A. [10:41:03] That is not a normal part of my activity in that the police are
8 responsible for obtaining that data and providing it to myself. If I am working for a
9 defence team, then if I have any concerns, I may ask for the documentation to show
10 the correct chain of custody of that data. And in the case of the Special Tribunal for
11 Lebanon, it was of particular concern as to exactly how the call data had been
12 generated. So in that particular case, there was extensive work undertaken to clearly
13 understand how the data had been generated and how it had been processed by the
14 prosecution before it was available to the defence teams.

15 Q. [10:41:58] And in this regard, Mr Brown, I notice in your report in paragraph
16 4.3.1, where you touch upon the transfer of data to central servers, to storage data,
17 you say:

18 "In modern networks this is carried out automatically."

19 Could you explain to the Chamber what you understand to be a modern network?

20 A. [10:42:34] When I first worked for Vodafone, the telephone exchanges that
21 collect this data, that data was then put onto magnetic tapes, and those magnetic
22 tapes had to be physically transferred to the headquarters where I worked and the
23 magnetic tapes were then offloaded and processed into the customer billing, and
24 those tapes would then be stored for a number of years.

25 Obviously, since that time, modern technology has allowed much more data transfer

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1 to operate through fibre networks and through microwave networks. So in any
2 modern network the data is transferred through the ethernet to the data storage
3 warehouses.

4 Q. [10:43:38] If you, Mr Brown, could give us an estimate since when in terms of
5 time this modern system of transfer of data has been installed, approximately?

6 A. [10:43:51] I would think any networks built from perhaps -- perhaps even from
7 the year 2000, somewhere between 2000 and 2005. I would expect modern networks
8 would have been built that way. I cannot rule out, of course, that at some particular
9 localities it may not have been possible to do that because the infrastructure simply
10 was not in place to be -- allow that to happen. So that data transfer electronically
11 may not have been possible. But, certainly, for most jurisdictions that would have
12 been possible, I think from at least 2000.

13 Q. [10:44:46] Mr Brown, in this regard, are you familiar with the data transfer
14 system of FTP -- that is to say, file transfer protocol?

15 A. [10:45:04] Yes.

16 Q. [10:45:05] FTP. How would you qualify this technology in terms of security,
17 security-proof or not proof?

18 A. [10:45:16] I don't believe I have the expertise to answer that satisfactorily.

19 Q. [10:45:24] If I put to you, Mr Brown, that FTP exposes data transmission to many
20 vulnerabilities, is this something that you read about or heard about, although it's not
21 your expertise as such?

22 PRESIDING JUDGE SCHMITT: [10:45:43] Before you answer, Mr Brown.
23 Ms Henderson.

24 MS HENDERSON: [10:45:47] Your Honour, the witness has just given an answer
25 that it's not something he feels comfortable to testify on. He is here as an expert

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1 witness, not someone who reads about things generally, and so I would object to that
2 question.

3 PRESIDING JUDGE SCHMITT: [10:46:00] Yeah, well, but we have an expert here
4 who is not to be manipulated. I think you can -- if you have any knowledge in that
5 regard, you can -- you can tell us if you have heard anything. But, of course, you
6 know as an expert that -- heard anything that you have not been able to, let's say,
7 verify yourself, does not -- has no real evidentiary value. But I think we have an
8 expert here, we can let the expert answer. Mr Brown.

9 THE WITNESS: [10:46:34] Thank you. I'm aware that networks obviously have
10 concern for the security of their networks, and indeed the networks in the UK that I'm
11 most familiar with, and in particular the Vodafone network because I worked for
12 many years for that company, they went to great lengths to build their own data
13 transfer networks to ensure there was the level of security that they wished to be.
14 I cannot comment as to how successful they were, whether that was 100 per cent
15 security that they could achieve or not.

16 PRESIDING JUDGE SCHMITT: [10:47:16] Thank you for this answer, Mr Brown.

17 MR KNOOPS: [10:47:20] Thank you, Mr President.

18 Q. [10:47:21] The reason I'm asking you this, Mr Brown, is - and I know it's not
19 your expertise, but I have a question from a different angle. A Prosecution witness
20 in this case, an operator of a telephone company in the Central African Republic,
21 stated that the transfer of data, which ultimately resulted in the providence of CDRs
22 from that company to the Prosecution service in this court, was established through
23 exactly this system of FTP.

24 Now, my question to you is: Would you as an expert --

25 PRESIDING JUDGE SCHMITT: [10:48:15] Well, you just -- you're now trying to --

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1 to --

2 MR KNOOPS: [10:48:21] Mr President, please let me ask the question.

3 PRESIDING JUDGE SCHMITT: [10:48:24] I understand. Okay, please complete
4 your question, but I'm not sure that Mr Brown will have a different answer. Okay,
5 please.

6 MR KNOOPS: [10:48:32] It's a different question.

7 Q. [10:48:34] As a forensic expert, you receive information that the transfer of data
8 were processed through a system that you were not familiar with, like FTP. Would
9 this give rise to you to any additional questions or concerns before you would accept
10 the CDRs as such, the data? In the context of forensic integrity, I mean?

11 PRESIDING JUDGE SCHMITT: [10:49:01] Ms Henderson?

12 But we don't want to now interrupt everything. It's clear that Mr Knoops tries --
13 simply tries to put another spin to it, and since we have a repeated -- since we have an
14 expert who has a lot of forensic experience, he also understands that.

15 You may answer the question, but if you're not -- if you simply feel not able to say
16 something concrete in that regard, you let us know please.

17 THE WITNESS: [10:49:30] I think I might express the -- or include the point in a
18 report that this has been done, but I would be unable to comment further as to
19 whether that could have affected the integrity of the data.

20 MR KNOOPS: [10:50:01]

21 Q. [10:50:02] In your report, Mr Brown, paragraphs 4.10.5 and 4.10.6, you refer to
22 the term "sufficient CDRs". If you please have a look in your report -- that is, on
23 CAR-D30-0018-0018. It's in the context of attribution of multiple telephones to the
24 same individual.

25 PRESIDING JUDGE SCHMITT: [10:50:46] It's 4.10.6, actually.

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1 MR KNOOPS: [10:50:51] Pardon.

2 PRESIDING JUDGE SCHMITT: [10:50:52] 4.10.6, yeah.

3 MR KNOOPS: [10:50:53] Yeah.

4 Q. [10:50:52] You see the first line, you say:

5 "This technique should only be considered valid when both mobiles have sufficient
6 CDRs for a reliable analysis and those CDRs overlap in time or follow one another
7 close in time."

8 My question to you, Mr Brown, can you explain what you mean with the term

9 "sufficient CDRs"? It may be difficult to give it any opinion in terms of quantity, but
10 certainly you have experience with the level of sufficiency of CDRs before --

11 A. [10:51:34] Yes, of course.

12 Q. [10:51:35] -- this technique is applied.

13 A. [10:51:39] As an expert witness and when I'm conducting any analysis of call
14 data records, I want as much data as I can get. Clearly the more data I have, then the
15 firmer are the conclusions that I may be able to reach.

16 At one extreme, if I only had a single day of data, I would be extremely reluctant to
17 draw any conclusions whether that was in any way a typical day of use for that
18 mobile phone.

19 In many cases there may only be one week of data, and if there's only one week of
20 data, I would certainly be very cautious and highlight to the court that there was only
21 one week of data and, therefore, unless the analysis of that data showed some very
22 clear indicators, I would be reluctant to draw conclusions.

23 Even when I say "one day of data", that of course varies between mobile phones. For
24 some mobile phones that may only be 100 lines of data, but in others that could equal
25 many thousands of lines of data. Certainly when I've reached having one month of

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1 data, then I'm becoming much more confident about the conclusion that I can draw.

2 Q. [10:53:18] We're still on the topic, Mr Brown, of the requirements for a cell-site
3 analysis, but suppose you were provided with just CDRs, or one is provided with
4 CDRs in general and there was no cell-site analysis made, if you just have raw CDRs,
5 would this have any forensic value in your opinion?

6 So you just provide CDRs raw, raw data or not, from the operator to, say, the court,
7 without any further analysis, what is in your estimation the forensic value of those
8 CDRs?

9 A. [10:54:17] There is nothing wrong with the raw call data records being provided
10 to the court, and, indeed, that is -- I often see that that is the case. The problem can
11 come in the correct interpretation of those records in that it is easier to misinterpret
12 what those records are saying.

13 It depends, of course, on the issue at hand as to whether I would consider it
14 impossible for the court to consider them or whether they may be able to consider the
15 data because it was only a simple query issue.

16 Q. [10:55:07] Are you in a position, Mr Brown, based on your experience in your
17 cases you worked as an expert, to provide some examples of potential errors if we as
18 legal officers just have the CDRs before us?

19 A. [10:55:29] I would think the most common error would be the interpretation,
20 who was initiating the call. And perhaps the second most common would be in
21 where was the user of the mobile phone at that time.

22 Certainly, it varies. Every network operator produces their raw CDRs in different
23 formats. Some are much more complicated than others. So some are simpler and
24 easier to interpret; others can be much more difficult to identify -- whether the call
25 was actually answered, for instance, or was it transferred to a voicemail number.

1 Those are the issues that can arise with some types of call data records.

2 Q. [10:56:32] Mr Brown, in your report, in paragraph 4.4.4, it's at 0012, you say,
3 "Ideally separate queries are made for each target number."

4 Now, when a CDR -- 0012 -- page, it's in your report, page 12, paragraph 4.4.4.

5 A. [10:57:24] Yes.

6 Q. [10:57:24] When a CDR contains multiple target numbers, could you say there
7 are risks that this could introduce a negative impact upon the analysis, if any?

8 A. [10:57:44] Yes, it's a possibility. I say "ideally" in that there is more work
9 involved for me to then disassemble that CDR before I can rebuild it into the standard
10 format that I would wish.

11 So perhaps the "ideally separate queries" is partly for my own benefit. It would
12 suggest to me that it is possible somebody has combined multiple sets of data. And,
13 of course, when I ask for the -- or what I've been referring to as the raw call data
14 records, they are the records that to my mind have been handled by a person to the
15 absolute minimum. Anything beyond that obviously introduces the possibilities —
16 and, it is only possibilities — that an error has been made in the handling of that data.

17 Q. [10:58:57] But would you agree that without an expert on this area, for
18 non-experts, as you also say in your report in paragraph 4.9.1 till 4.9.2, those
19 non-experts could miss the subtleties, because we need -- you need a forensic expert
20 to make clear what it means to have multiple target numbers in a CDR?

21 A. [10:59:48] Yes, clearly there is the possibility that people not as experienced in
22 reading CDRs may miss errors that to me seem obvious. That's not to say they
23 would necessarily miss them. But, of course, that's a possibility; and, of course for
24 myself, it's a -- you introduce the human element, that's a possibility that errors are
25 missed.

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1 PRESIDING JUDGE SCHMITT: [11:00:23] Ms Henderson.

2 MS HENDERSON: [11:00:26] Sorry, it's just a comment for the record. I think that
3 the references to paragraphs 4.9.1 and 4.9.2 might not be the right ones as I don't see a
4 reference to non-experts there.

5 PRESIDING JUDGE SCHMITT: [11:00:35] Yeah. Can you enlighten us.

6 MR PAGES-GRANIER: [11:00:43](Interpretation) Sorry, not on the same subject.

7 Unfortunately, he doesn't feel very well. Could he leave and -- however, he has only
8 one concern, that you do continue with the examination of Mr Brown in his absence.

9 But he's not feeling very well. With your permission, of course.

10 PRESIDING JUDGE SCHMITT: [11:01:01] Well, let's --

11 (The Trial Chamber confers)

12 PRESIDING JUDGE SCHMITT: [11:01:16] So, if you declare -- if you declare that he
13 does not need to be here during the examination, yeah, then we're fine with that.

14 MR PAGES-GRANIER: [11:01:30](Interpretation) Yes, we can confirm.

15 PRESIDING JUDGE SCHMITT: [11:01:31] Yes, okay.

16 Then please let's have a five-minute break and then come back so that we can install
17 ourselves again.

18 THE COURT USHER: [11:01:39] All rise.

19 (Recess taken at 11.01 a.m.)

20 (Upon resuming in open session at 11.07 a.m.)

21 THE COURT USHER: [11:07:50] All rise.

22 Please be seated.

23 PRESIDING JUDGE SCHMITT: [11:07:57] For the record, Mr Yekatom has waived
24 his right to be present during the examination of the expert today. We hope that he
25 will feel better tomorrow. And you let us know. I think there's no problem

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1 specifically with regard to the content of the testimony here.

2 Yeah, we had to clarify the reference, I think.

3 Ms Henderson, can you repeat that?

4 MS HENDERSON: [11:08:25] Yes, your Honour, I thought I heard Mr Knoops say
5 it was 4.9.1 or 4.9.2, but I don't see a reference to a non-expert in those paragraphs.

6 PRESIDING JUDGE SCHMITT: [11:08:37] Well, the -- well, we have the answer by
7 the witness, I think. It's -- and I recall, and just also for you, Mr Brown, when -- what
8 we -- this exercise that we did in the beginning, this is what we call Rule 68(3). This
9 means your report is already part of your evidence.

10 THE WITNESS: [11:09:06] Thank you.

11 PRESIDING JUDGE SCHMITT: [11:09:08] Meaning as if you had completely talked
12 about this today orally already. This is a, you know, judicial function that we have
13 in our Rules of Procedure and Evidence, so we don't have to repeat what is said in
14 your report and the annexes. It's simply about clarifying things, amending things,
15 going into specific matters and so on and so forth.

16 Mr Knoops, please continue.

17 MR KNOOPS: [11:09:36]

18 Q. [11:09:37] Mr Brown, I have just three questions on the topic of the cell-site
19 requirements before going to the CDR formats.

20 First of all, in your report in paragraph 1.2.5, which is --

21 PRESIDING JUDGE SCHMITT: [11:09:59] 0004.

22 MR KNOOPS: [11:10:01] 0004.

23 PRESIDING JUDGE SCHMITT: [11:10:02] Yes.

24 MR KNOOPS: [11:10:03] Exactly, Mr President.

25 Q. [11:10:05] You refer to the CDR extract files being "correctly managed to ensure

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1 any subsequent analysis". And you refer to "Any analysis products created for a
2 prosecution must be repeatable for defence verification purposes."

3 My question to you, Mr Brown: Could you give some examples what you meant
4 here by the term "analysis products"?

5 A. [11:10:48] So this paragraph I'm wishing to make two points about, firstly, the
6 extract files, so the raw call data records. It is not uncommon that the police force
7 have looked at those records for themselves, perhaps done some of their own analysis
8 on those records and then they pass the file to me in -- and what I want is something
9 untouched by human hand, if that's possible.

10 So if at all possible, I will go back and say, "I want something that you have not done
11 any work on, that you've not done any analysis on, a file that you've ideally not even
12 opened." Unfortunately, Excel has a strange little quirk that if you change the file
13 name while the file name is open, it can corrupt some of the numerical data within the
14 file.

15 So that's the first part. I want files that nobody has touched, if at all possible.

16 Secondly, if I'm working for the defence and the prosecution have provided files to
17 me that are products of call data records — in other words, that they are not the call
18 data records themselves, but are something that they have produced using those call
19 data records — I, as part of my normal defence work, would wish to be able to
20 recreate that to see if I get the same result. You know, like any simple scientific
21 principle, it should be repeatable.

22 So yes, simply that -- that I would wish to be able to -- I like to know which files the
23 prosecution have used. In my own prosecution reports, I would always declare
24 which particular records I have used, which files I have used so that any defence
25 expert can see exactly what I used and therefore be able to reproduce my work, if they

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1 wish to.

2 Q. [11:13:20] Mr Brown, if such an independent repetition of that work would not
3 be possible for you as an expert, what would be your conclusion as to the forensic
4 value of such an examination, absent any chance to repeat the underlying raw data?

5 A. [11:13:59] I think I would clearly declare in my report any concerns I may have
6 as to how that may impact. Of course, it depends on the issue or the opinion being
7 drawn by another party as to whether I consider that that is not a conclusion that
8 I could possibly come to in the absence of the original material, and that is all I would
9 be able to say.

10 In simpler issues, I may be able to say that I see no difficulty coming to that even
11 though I can't reproduce that answer.

12 So it depends on the severity of the issue as to whether I feel it would affect the
13 analysis.

14 Q. [11:14:54] Would the amount of CDRs also be a factor in such a decision?

15 A. [11:15:04] Yes, of course. As I previously said, the more data I have, the
16 happier I am. That's not to say I can't carry out an analysis with smaller amounts of
17 data, it's just the conclusions would need to be less strong, should I say.

18 Q. [11:15:24] Speaking about CDR extracts, you also touched upon in your report,
19 the CDR extracts from different networks. You say for -- and it's paragraph 4.5.1 of
20 your report, at 0013, you say:

21 "For consistency and ease of use in court, the CDR Extracts from different networks
22 are usually processed by analysts and presented in tables with a standard format."

23 A. [11:16:05] Yes.

24 Q. [11:16:06] Now my question to you, Mr Brown is: Absent any compelling
25 reason to present information in a different format, would the production of CDRs, or

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1 CDR extracts with different formats, without such a standard format, create any risk
2 forensically?

3 A. [11:16:45] Of course it's a possibility, but I would want to understand what has
4 been done with the -- the original call data records. So it would depend on what
5 I felt had been done.

6 If I was presented an advanced statistical analysis of call data that I couldn't repeat in
7 any shape or form, I would obviously be very concerned for a defence team.

8 But if it's a simple matter of a line of data with a simple issue, then I would obviously
9 be less concerned.

10 Q. [11:17:38] Thank you.

11 Now, would it in this regard make a difference that -- for a court of law to understand
12 these potential problems of CDR extracts from different networks, without being
13 instructed by an expert who can actually anticipate any risk?

14 A. [11:18:16] Clearly, I would say there are risks depending on the points at issue.
15 So it's not without risk, but it's not impossible for a court to use those raw call data
16 records. Of course, I am normally presenting evidence to a court with a lay jury who,
17 I might say, need additional support to the professionals present in the court, so.

18 Q. [11:18:55] Thank you.

19 PRESIDING JUDGE SCHMITT: [11:18:56] If I may, you know, I would like to
20 comment on that. Well, I love the wording, the expression, "additional support".
21 Well, I also, and I think my -- no, perhaps one colleague, not, but some of the judges
22 also need additional support here and we appreciate it, to put it this way.

23 Mr Knoops, please continue.

24 MR KNOOPS: [11:19:16]

25 Q. [11:19:16] Mr Brown --

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1 PRESIDING JUDGE SCHMITT: [11:19:17] But if I may say -- if I may say, also with
2 regard, why not say that, with regard to the report, it's absolutely clear structured and
3 even a layperson like me, for example, can easily follow what the -- what the expert
4 says, if I may just comment at this stage, shortly. Mr Knoops, please.

5 THE WITNESS: [11:19:37] Thank you.

6 MR KNOOPS: [11:19:39]

7 Q. [11:19:39] Mr Brown, after having gone through some basic elements you would
8 need this expert to perform a cell-site analysis and all the potential pitfalls, I would
9 like now to go to my second topic, and it is in line with the previous subject matter,
10 the CDR formats. You already alluded to this this morning, Mr Brown, that you in a
11 normal course of action would receive data files in a PDF format that cannot be edited.
12 That's in your report, in paragraph 4.4.2 on page 0012. You refer to best practice,
13 and that a second copy should be provided in a .csv or other Microsoft Excel format.

14 A. [11:20:46] Yes.

15 Q. [11:20:47] Now, in this case -- and I would like to call up tab 5 of the Defence
16 binder. It's in front of you, Mr Brown?

17 A. [11:21:00] Yes.

18 Q. [11:21:01] Tab 5. If you would be so kind to look at page CAR-D30-0018-0071.
19 This is an analysis report by the federal judicial police of Switzerland performed in
20 this case in regard to several CDRs which were provided to the Office of the
21 Prosecution. And if you would be so kind, Mr Brown, to look at paragraph 2.2 of
22 this page, you see in the third paragraph starting:
23 "The decision was made to create a database in SQLite format, so that all the data
24 could be consolidated into a single format. This makes it possible to obtain an
25 effective data model and facilitates analysis. The data was first sorted by file type,

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1 then grouped by the different internal formats. This resulted in 47 groups of
2 different formats [...]"

3 And then you see a table, and:

4 "The number of different formats per type of file is as follows".

5 Do you see it, Mr Brown, the PDF 3, TXT 3, CSV 9, TIF 5, and XLS 27?

6 A. [11:22:49] Yes, I see that.

7 Q. [11:22:50] What is your professional opinion if you would receive CDRs in all
8 these types of formats?

9 A. [11:23:06] I'm tempted to say I'm glad I didn't get that job. There's a lot more
10 work with a lot more inherent risk in processing the data. A PDF file can be
11 converted, as it says in the earlier paragraph there, using the OCR software, the
12 optical character reader software. But the very limited occasions that I have had to
13 use those, it then needs a lot of care to ensure that that has been done correctly and
14 that the data is then suitable for further analysis.

15 I have not had to use TIF files, but the others I have used. So it just makes my work
16 harder and I would need to be very cautious how I did that work.

17 Q. [11:24:14] Could you, Mr Brown, be more specific in terms of what type of risk
18 would an expert run or a court of law that is confronted with all these different type
19 of CDR formats?

20 A. [11:24:30] A PDF file can be created in a number of different ways. If it is
21 created directly from an Excel format, then that is reasonable to say that can be
22 converted back to an Excel file, again with some requisite checking to make sure that
23 it had then happened correctly. But a PDF file can also be created by scanning a
24 paper document and those are the cases that data can simply be misread by the
25 software so that a smudgy 0 on the paper copy becomes a 0 -- or a smudgy 1, rather,

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1 becomes a 0, or vice versa. So, in other words, numbers may be read incorrectly by
2 the software if that is the case.

3 Q. [11:25:42] Would you as expert accept on its face value the CDR -- CDRs in the
4 format of a CSV form, that's the third one?

5 A. [11:26:01] A CSV is the easiest format for me to work with, as are the XLS
6 and the XLSX and XLSB formats. So those are all easy to work with. The others are
7 more difficult to work with. I would certainly, if -- I would ask for alternative
8 formats, but if they're simply not available, if that is all I have to work with, then
9 obviously I will work with them.

10 Q. [11:26:30] But I mean, Mr Brown, suppose you were not provided with the raw
11 data, but the data provided by the telephone company in a CSV format. So we skip
12 the part of the raw data and you would receive the CDRs from the telephone
13 company in a CSV file?

14 A. [11:27:06] It is normal for the -- in the UK, the network operator would typically
15 create both a PDF copy and a CSV copy. And it is the CSV copy that is the one
16 I would then use for my analysis, in that that is the format I know is least likely to
17 have been affected by anybody's handling of that file.

18 PRESIDING JUDGE SCHMITT: [11:27:35] Ms Henderson.

19 MS HENDERSON: [11:27:37] Yes, Mr President, I let the question go there because
20 I think the expert is able to handle it, but I'm a bit confused by the question because
21 my understanding is that the raw data that comes from the telephone company, that
22 that is what comes in a -- in the sense of what comes in a CSV format. There's no
23 distinction there that Mr Knoops is trying to draw, so I just make the comment it's a
24 bit confusing as a question.

25 PRESIDING JUDGE SCHMITT: [11:28:08] Well, Mr Knoops made an assumption

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1 and the witness has answered -- expert has answered, and I think we can continue.

2 Well, you have also heard, Mr Brown, the comment by the Prosecutor, Ms Henderson.

3 Is it correct what she's saying?

4 THE WITNESS: [11:28:28] Yes. So a CSV format is one that is commonly provided
5 by the network operator.

6 PRESIDING JUDGE SCHMITT: [11:28:36] Okay, thank you.

7 Mr Knoops.

8 MR KNOOPS: [11:28:49]

9 Q. [11:28:50] Mr Brown, how does this, just for my understanding, reconcile what
10 you now say with your paragraph 4.4.2, where you say practice requires that the files
11 are provided in a PDF format, they cannot be edited, that becomes the evidential
12 document --

13 A. [11:29:01] Yes.

14 Q. [11:29:02] -- and on the basis of that document I make a second copy provided in
15 a CSV copy, or Microsoft Excel format. So my understanding from this paragraph is
16 that you require a PDF format, and on the basis of this you make a second copy.

17 A. [11:29:30] My apologies. That is not what I was trying to say in this paragraph.
18 It is that a second copy of the data is created by the network operator and provided to
19 me so that I receive two copies from the network operator, one a PDF and one a CSV.

20 PRESIDING JUDGE SCHMITT: [11:29:54] If I may, Mr Knoops, I think I understand
21 what you are heading at.

22 Mr Brown, when you say "best practice", this means, well, it would be best for you if
23 you received it in a PDF format, and if not, you have to work with what you get; is
24 this a correct understanding?

25 THE WITNESS: [11:30:12] Simply put, yes.

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1 PRESIDING JUDGE SCHMITT: [11:30:15] Thank you. Mr Knoops.

2 MR KNOOPS: [11:30:20]

3 Q. [11:30:20] Is my understanding, Mr Brown, that the PDF format which cannot be
4 edited is for you a document of reference to check whether the CSV format is correct?

5 A. [11:30:33] Yes, and I do use those PDF copies to check any queries I have on the
6 data.

7 Q. [11:30:45] Thank you. Now, we would like to conduct with you, Mr Brown, a
8 small exercise. This relates to our Defence binder, tab 1. That's CAR-D30-0011-0007
9 of our Defence binder.

10 What you will see, Mr Brown, is eight examples of CDRs received in this case. First,
11 I would ask you to look at all eight of them and then I have some questions per CDR,
12 and our main goal is to ask you to compare the heading columns, the heading names,
13 the sheet names and the file formats.

14 So, take your time and let us know if you have seen them and then we can start with
15 the first one.

16 PRESIDING JUDGE SCHMITT: [11:32:11] That is quite some requirement for the
17 expert on short notice. If you feel able to do that exercise, Mr Brown, now that we
18 are here in the courtroom in this, well, stressful atmosphere, so to speak, it's okay.

19 But if you say you would need a little bit of time for that, we could also perhaps do it
20 tomorrow, then, Mr Knoops, so that the witness has time to look at it.

21 THE WITNESS: [11:32:40] Your Honour, it is not the first time I've seen documents
22 of this sort, so I -- it is going to depend on the question as to whether I wish to make
23 the time for it.

24 PRESIDING JUDGE SCHMITT: [11:32:53] Actually, you're making the Chamber
25 happy so that we simply can continue. Please have a look at it and say when you are

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1 ready to hear the questions.

2 THE WITNESS: [11:33:10] Okay. I'm happy to proceed.

3 PRESIDING JUDGE SCHMITT: [11:33:12] Well. That's quick, thank you.

4 Mr Knoops, you sat down prematurely, so to speak.

5 MR KNOOPS: [11:33:21] Yes, absolutely, Mr President.

6 Q. [11:33:22] Thank you, Mr Brown. Your first response, did you notice any
7 differences between those CDRs; and, if so, what is your professional opinion on the
8 utility of these CDRs to perform on these CDRs a CSA, for instance?

9 A. [11:33:49] Yes, I can see that they are headed slightly differently. They all
10 contain the type of information that I would typically expect to see in a CDR.
11 They're all CDRs that I would feel able to make some use of. But depending on the
12 particular query as to whether that would be possible or not, I can't say.

13 Q. [11:34:18] Okay. Let us then go, first, to the CDR, CAR-D30-0011-0007.
14 I ask you to look, Mr Brown, specifically at column A on the left side with the word
15 "Mobile", you see it's empty, and on the very right side, "IMEI", and that column is
16 also empty.

17 A. [11:35:00] Yes.

18 Q. [11:35:01] And my question to you is: Would it have any bearing on a potential
19 analysis by you of those -- of this CDR?

20 A. [11:35:15] This obviously is a very limited view of this file. I would wish to
21 look through the rest of the file to try to understand what might have happened here.
22 Clearly, this data -- there's very little that this particular data could be used for
23 because some of that data you might want is simply missing.

24 Q. [11:35:36] Yeah.

25 PRESIDING JUDGE SCHMITT: [11:35:37] Ms Henderson, can you clarify

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1 something?

2 MS HENDERSON: [11:35:41] Yes, indeed I can, your Honour.

3 In terms of the missing data, your Honours would be assisted firstly by -- if you see
4 on that page, after the internal ERN, 2025-0644, you see the letter "R" and then the
5 numbers "01", and I would refer the Chamber to the Prosecution request 714 and what
6 was said there about the deletion of data from cells at paragraph 31. Specifically, I
7 would refer to annex A of that filing, which refers specifically to that call data record
8 CAR-OTP-2025-0644, and then I would refer finally to the decision of the Chamber
9 790, granting the application in relation to the CDR.

10 PRESIDING JUDGE SCHMITT: [11:36:35] And could you also, now, because we
11 might not be fully aware of what is behind that, could you please in your words tell
12 us and the expert what this means?

13 MS HENDERSON: [11:36:47] Yes, your Honour. Do I have to say the reason for
14 the request or simply what has happened?

15 PRESIDING JUDGE SCHMITT: [11:36:53] No, no, simply what was happening and
16 specifically the result.

17 MS HENDERSON: [11:36:57] Right. So, in simple terms, the Prosecution requested
18 that certain data not be disclosed to the Defence, according to the statutory
19 framework of the Court.

20 As a result, certain cells of data were deleted from the raw CDR, disclosed in that
21 form to the Defence and also appearing on Nuix.

22 PRESIDING JUDGE SCHMITT: [11:37:23] Yeah, yeah. Thank you, so that is --

23 MS HENDERSON: [11:37:28] (Overlapping speakers)

24 PRESIDING JUDGE SCHMITT: [11:37:28] This explains what happened here, but of
25 course the issue is still there and I think it's absolutely correct of Mr Knoops to ask

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1 you that, and I've understood your answer that this means that CDRs like these are of
2 a limited use.

3 THE WITNESS: [11:37:47] Yes.

4 PRESIDING JUDGE SCHMITT: [11:37:48] Okay. Mr Knoops, please continue.

5 MR KNOOPS: [11:37:54]

6 Q. [11:37:55] Mr Brown, you -- you did say in your evidence this morning that it's
7 important for you that CDRs are, as much as possible, not edited by anyone. You
8 hear now that apparently this CDR was edited in terms of certain data was deleted.
9 Would it make for you a difference in your conclusions if, apart from the reason for
10 deletion, you have before you a CDR, and you know information has been deleted?
11 What is for you the consequence of the utility of that CDR?

12 A. [11:38:42] Once I'm in possession of the understanding of why it was done, I --
13 I'm able to carry out some analysis using that data, but I would simply make sure it
14 was understood that I have relied upon others to tell me about the missing data. So
15 as long as they are aware of it, then it's not for me to decide whether I can or cannot
16 use it. So I can use it, but obviously with that proviso.

17 Q. [11:39:21] But in general, if you have a CDR which lacks the IMEI number and it
18 lacks the mobile, the MSISD number, in general, what would you say about such a
19 CDR?

20 A. [11:39:44] Well, clearly it depends on the extent of the editing that appears to
21 have taken place. And that's part of my reading of the raw CDR, is to understand
22 whether the work that has been done by somebody to the CDR renders it of less value
23 or not. Very occasionally I get to the point of saying I simply don't want to use it
24 because I don't trust it. So it depends on what explanations can be provided to me
25 about why it looks the way it does.

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1 Q. [11:40:30] You see on the second CDR, 0008, also on an Excel format, you see --
2 and that is not in the CDR itself, for clarity it's based upon the metadata. You see at
3 the bottom of that CDR, "creator", and you see a name of a person.

4 A. [11:40:56] Yes.

5 Q. [11:41:03] Suppose this is one of the operators working for a telephone company,
6 not being an expert, not being a police officer who was able to verify the veracity of
7 the CDR data, would you accept such a CDR on its face value, if provided by such an
8 individual?

9 A. [11:41:42] Yes. Again, I would take note if I believed it -- what I believed about
10 that particular file as to whether it had a chain of custody that linked to this
11 individual. Of course, I don't know who this individual might be, but there may be
12 a reasonable explanation for that name being there.

13 Q. [11:42:16] If you go to the next CDR, that's 0009.

14 A. [11:42:31] Yes.

15 Q. [11:42:34] You see again based on the metadata, the name of the creator which is
16 different from the name of the previous CDR.

17 A. [11:42:51] Yes.

18 Q. [11:42:56] Would this have any bearing on your decision to use these CDRs, if
19 you were confronted with CDRs presented by different people from the same
20 telephone company, not being experts?

21 A. [11:43:15] Again, I would note that it appears to have been created by a different
22 operator, but I wouldn't reject it just because it was produced by a different operator.

23 PRESIDING JUDGE SCHMITT: [11:43:28] Ms Henderson.

24 MS HENDERSON: [11:43:30] Your Honours, I think that the witness understands,
25 based from his answer, but it's just a -- still with the question, I think to say that these

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1 individuals presented these CDR extracts not being police officers, not being experts,
2 it's to a degree misleading because we have evidence on the record that these persons
3 were persons employed by the telephone company extracting the data.

4 PRESIDING JUDGE SCHMITT: [11:44:00] Yeah, but Mr Brown is fully aware that
5 these were people from the telephone companies who probably did this not for the
6 first time, or possibly, or whatsoever. So it's okay, Mr Brown understands all that.
7 Mr Knoops, please continue.

8 MR KNOOPS: [11:44:15]

9 Q. [11:44:15] Mr Brown, I have two CDRs which I specifically asked your attention
10 on. This is the CDR which ends with CAR-D30-0011-0012.

11 A. [11:44:39] Yes.

12 Q. [11:44:40] You see at the bottom it's apparently provided in a ".csv Placeholder"?

13 A. [11:44:46] Yes.

14 Q. [11:44:51] What is your opinion about this CDR?

15 A. [11:45:00] As a .csv, it is certainly -- I would consider it possible to use this data.
16 Again, I would want to study more of this -- the file rather than the small amount
17 visible here. And for those, the first thing that occurs to me is that the commas are
18 missing. ".csv" means comma separated variables, so each item of data is normally
19 separated by a comma and they appear to be missing here, so I would want to
20 understand why that might be.

21 At the moment, they appear to be -- all of the data is only existing in column A, so
22 these are long strings of information currently resting here. It certainly is still
23 possible to use this data, but it gets more difficult without the commas present.

24 Q. [11:46:04] The next CDR ending with 0013, could you enlighten us what is your
25 professional opinion on this CDR?

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1 A. [11:46:22] Well, we're missing the grid lines here, and also this is a PDF now.
2 I don't know if this is page 1 of this particular PDF. It is common with PDFs that the
3 column titles appear only on the first page and not on subsequent pages, which can
4 be a nuisance. But with a little work, I would understand what each column was
5 intending to be and, therefore, it would be possible to use it, although with some
6 difficulty.

7 Q. [11:47:00] If I would say to you this is, according to our information, the first
8 page of the PDF file?

9 A. [11:47:10] Okay. Well, disappointing that the headers are not included and it
10 could be -- I don't know how this PDF has been created.

11 Q. [11:47:18] But would you agree that without that information you could not use
12 such a CDR in your assessment?

13 A. [11:47:27] No. The information is well enough formatted that I would feel
14 comfortable using it. Again, rather than just this very short set we're looking at, I
15 would want to look through the whole of the rest of this file, and if there was
16 consistency throughout of the data I was seeing, then, yes, I would be using it, but,
17 again, making note that it lacked some of the information I would have preferred to
18 be there.

19 Q. [11:48:03] I would also like your attention to the fifth column of that CDR
20 starting with "Moov", M-O-O-V, "Telecel", "Moov", "Moov", and then we have six or
21 seven times the word "Tchad".

22 A. [11:48:27] I see that.

23 Q. [11:48:29] Is it, by your knowledge, this is related to a telephone company?

24 A. [11:48:40] That is my opinion.

25 Q. [11:48:44] So is it your opinion that, based on this CDR, the information is

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1 provided by telephone companies Moov, Telecel, and a company called Tchad.

2 A. [11:49:12] No, I would be of the opinion that this data has all come from the
3 single network that the mobile that ends 147 subscribed to. And it is recording here
4 which networks it was directing the call to or receiving from.

5 And it appears to me the reference to -- the "Tchad" reference appears to be a foreign
6 network, judging by the second column. International format numbers are there that
7 are visible to show that they were in contact with that foreign network.

8 Q. [11:50:05] Mr Brown, could you, based on this CDR, conclude, as expert, who
9 provided the CDR, which company?

10 A. [11:50:22] With a little bit of work, that would be possible, again, given enough
11 data. The numbers on each network, each network tends to be assigned particular
12 network codes. So the first, typically, five digits of the phone number belong to a
13 certain network. So with enough data to look at, I could identify whether this was a
14 subscriber to the Moov network or to the Telecel network.

15 Q. [11:50:58] But supposed we don't have your expertise in court, and we just, as
16 participants in this courtroom, have this CDR. Would it be possible to say this CDR
17 is provided by (Overlapping speakers) --

18 PRESIDING JUDGE SCHMITT: [11:51:14] Mr Knoops, if our expert -- I say now "our
19 expert" -- our expert would have to look at more data to figure that out. The answer
20 seems to be relatively clear. I have -- you wanted to add something, Mr Brown.

21 THE WITNESS: [11:51:38] No, your Honour, just that with enough data, I'm sure
22 I could work it out. But a court on its own might struggle.

23 PRESIDING JUDGE SCHMITT: [11:51:48] (Microphone not activated) Would need
24 additional assistance.

25 THE WITNESS: [11:51:51] Indeed.

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1 MR KNOOPS: [11:51:53] Mr President, that was the crux of my question, because
2 when you're in chambers at a certain point in time, you have Mr Brown not before
3 you.

4 PRESIDING JUDGE SCHMITT: [11:52:02] Absolutely, but I already indicated it.
5 We are -- well, we are happy that he is here. And everything he says is -- can be
6 followed even by a person like me who is, at least with regard to CDRs, a layperson.
7 Yeah, Mr Knoops.

8 If you start something -- if you wanted to start something completely new, we could
9 ponder to finish here.

10 MR KNOOPS: [11:52:37] Yes, Mr President. We would like to go into new
11 examples, and that might take more than the nine minutes which are left.

12 PRESIDING JUDGE SCHMITT: [11:52:44] But still we have to be -- I would remind
13 everyone when we now conclude for today and don't have the afternoon session, we
14 have to finish until Friday. Is this clear for everyone? And I would really like
15 everyone, including also Ms Henderson -- you might not have so many questions in
16 the end, I assume. So we do it this way.

17 And we appreciate, Mr Brown, that you are so flexible that CDRs that you have never
18 seen before, you feel able and competently so if I may say, to answer the questions on
19 them at a quick glance. Thank you very much for that.

20 So we conclude the hearing for today and we continue tomorrow at 9:30.

21 THE COURT USHER: [11:53:32] All rise.

22 (The hearing ends in open session at 11.53 a.m.)