

**EVIDENCE – SUBJECT OF EXPERT TESTIMONY UNDER RULE 5-702 – TECHNICAL PROCESSES**

Trial court erred by allowing a police officer, who was not qualified as an expert under Maryland Rule 5-702, to testify as to the location of the cell phone towers through which the defendants' cell phone calls were routed as determined by his analysis of the defendants' cell phone records, because such testimony requires that the witness be qualified as an expert.

**EVIDENCE – HEARSAY EXCEPTIONS – PARTY OPPONENT**

Statements by a co-defendant are not admissible against another defendant as that of a party-opponent under Maryland Rule 5-803(a)(1), because the party-opponent of a defendant at trial is the State.

**EVIDENCE – HEARSAY EXCEPTIONS – STATEMENT OF A CO-CONSPIRATOR**

Trial court erred by admitting the statement of a co-defendant as that of a co-conspirator under Maryland Rule 5-803(a)(5), without sufficient evidence from which to find the defendant was a participant in the alleged conspiracy.

**EVIDENCE – ADMISSIBILITY OF STATEMENTS OF A NON-TESTIFYING CO-DEFENDANT**

Under *Bruton v. United States*, 391 U.S. 123, 88 S.Ct. 1620, 20 L.Ed.2d 476 (1968), the introduction of statements of a non-testifying co-defendant that inculcate another defendant requires severance of the trials only when the statements are testimonial and trigger the other defendant's Sixth Amendment Confrontation Clause rights under *Crawford v. Washington*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177 (2004).

Circuit Court for Baltimore County,  
Maryland  
Case Nos. K-08-0027; K-08-0026  
Argued: September 10, 2014

IN THE COURT OF APPEALS  
OF MARYLAND

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No. 85  
September Term, 2013

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STATE OF MARYLAND  
v.  
JOSEPH WILLIAM PAYNE  
&  
JASON BOND

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Barbera, C.J.  
Harrell  
Battaglia  
Greene  
Adkins  
McDonald  
Raker, Irma S. (Retired,  
Specially Assigned),  
JJ.

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Opinion by Battaglia, J.  
Barbera, C.J., Harrell and McDonald, JJ.,  
concur

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Filed: December 11, 2014

Joseph William Payne and Jason Bond were convicted in a joint trial of first degree felony murder and kidnapping, along with the use of a handgun in the commission of a felony. These convictions were based, in part, on the testimony of Detective Brian Edwards of the Baltimore County Police Department. Detective Edwards testified, without having been qualified as an expert witness under Maryland Rule 5-702,<sup>1</sup> that by interpreting Payne's and Bond's cell phone records subpoenaed from Sprint Nextel<sup>2</sup> for the period from August 26 to August 27, 2007, he was able to determine the location of cell phone towers through which particular calls were routed and to plot the locations of those towers on a map in relation to the crime scene. The attorneys for Payne and Bond objected to Detective Edwards's testimony arguing, *inter alia*, that he should have been qualified as an expert. The trial judge overruled their objections and opined that Detective Edwards's testimony only related facts that could be independently verified from the phone records.

The trial judge also admitted into evidence against both Payne and Bond six recorded phone conversations in which Bond was a participant but Payne was not, in which

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<sup>1</sup> Maryland Rule 5-702 provides:

**Testimony by experts.** Expert testimony may be admitted, in the form of an opinion or otherwise, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue. In making that determination, the court shall determine (1) whether the witness is qualified as an expert by knowledge, skill, experience, training, or education, (2) the appropriateness of the expert testimony on the particular subject, and (3) whether a sufficient factual basis exists to support the expert testimony.

<sup>2</sup> Sprint Nextel, now Sprint Corporation, offers wireless and wired communications services to consumers, businesses and governments. *Sprint Nextel Corporation*, NYTimes.com, [http://topics.nytimes.com/top/news/business/companies/sprint\\_nextel\\_corporation/index.html?](http://topics.nytimes.com/top/news/business/companies/sprint_nextel_corporation/index.html?) (last visited Dec. 8, 2014).

the discussions suggested an alibi on the night of the murder. After the trial judge had determined that a conspiracy to conceal the murder existed and that Payne and Bond were participants in that conspiracy, she admitted generally the six recordings.

In a reported opinion, the Court of Special Appeals reversed Payne's and Bond's convictions, ruling that the trial court erred in admitting Detective Edwards's testimony without his having been qualified as an expert witness. *Payne & Bond v. State*, 211 Md. App. 220, 231, 65 A.3d 154, 160-61 (2013). Thus, a new trial was ordered for both defendants. Concerning an issue likely to arise upon re-trial, the intermediate appellate court apparently determined that Bond's statements during the wiretapped telephone calls could be admitted against Payne, not as the statement of a co-conspirator, but under Maryland Rule 5-803(a)(1),<sup>3</sup> which permits admissions of a party-opponent. *Id.* at 252, 65

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<sup>3</sup> Maryland Rule 5-803(a) governing hearsay exceptions where the declarant's unavailability is not required states:

The following are not excluded by the hearsay rule, even though the declarant is available as a witness:

(a) Statement by party-opponent. A statement that is offered against a party and is:

(1) The party's own statement, in either an individual or representative capacity;

(2) A statement of which the party has manifested an adoption or belief in its truth;

(3) A statement by a person authorized by the party to make a statement concerning the subject;

(4) A statement by the party's agent or employee made during the agency or employment relationship concerning a matter within the scope of the agency or employment; or

(5) A statement by a coconspirator of the party during the course and in furtherance of the conspiracy.

A.3d at 172-73. We granted the State's Petition for Certiorari to consider the following question:

May a trial court, in the exercise of its sound discretion, allow a lay witness, without qualification as an expert, to testify about objectively verifiable facts that do not involve the witness forming any opinion or drawing any inference or conclusion?

We also granted Payne's cross-petition to address the following question:

Did the Court of Special Appeals err in ruling that wiretap statements made by respondent Bond but not respondent Payne were nevertheless admissible against Payne as statements by a party opponent?

*Payne & Bond v. State*, 434 Md. 311, 75 A.3d 317 (2013).

We shall hold that Detective Edwards needed to be qualified as an expert under Maryland Rule 5-702 before being allowed to testify as to his process for determining the communication path of Payne's and Bond's cell phones, as well as his conclusion that the Menlo Drive cell tower and the Balmoral Towers cell tower were the most pertinent to the case.

The present case began when, in the early morning of August 27, 2007, officers of the Baltimore County Police Department, including Detective Brian Edwards, a fourteen year veteran of the force with four and a half years in the homicide unit, responded to a call and discovered a body on fire in the woods at Villa Nova and Queen Anne Roads in Pikesville. Early in the investigation, detectives recovered a scrap of paper from the bedroom of the victim, Glen Stewart, containing two names and associated phone numbers, one of which was that of Desmond Jones. Investigation of Desmond Jones's cell phone records led detectives to identify numbers associated with Payne, Bond, Christopher

Johnson, Tyrice McCant and Brittany Keller. Detectives obtained dialed number recorder (“DNR”) authorizations to capture the numbers of phones called by those individuals. According to the State in its brief, the “DNRs showed numerous calls between McCant, Keller, Payne, Bond, Johnson, and Jones” around the time of police interviews of McCant and Keller in late October and early November of 2007.

Investigation of Jones’s records also led Detective Edwards to subpoena additional sets of “phone records” associated with phone numbers with which Jones communicated, totaling “close to a hundred different sets of records”. These “phone records”, which were received electronically from Sprint Nextel, totaled “thousands of pages” when printed. Detective Edwards testified that he then chose individuals identifiable as the most “pertinent”, including Payne and Bond, for whom he amassed records of their cell phone calls from August 3 through August 31, 2007. Apparently, the amassed information was in the form of Call Detail Records<sup>4</sup> for Payne’s and Bond’s cell phones, which accounted for roughly thirty to forty pages for Payne, while Bond’s were “under 10 pages”.

Detective Edwards further testified that, once he isolated the separate working copies, he parsed Payne’s records to a single page document and Bond’s records to a quarter-page exhibit, of trimmed call entries depicting communications to or from Payne’s and Bond’s phones within the timeframe from August 26 to August 27, 2007, under the headings of “Duration”, “Direction”, “Dialed”, “Beginning Tower”, “Ending Tower”,

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<sup>4</sup> These records were Call Detail Records, as indicated by the inclusion of cell tower identification information, as discussed *infra*.

“Lat” and “Long”; each document was admitted into evidence as Exhibit 12 and 11B, respectively.<sup>5</sup> Excluded from both exhibits was information that Detective Edwards determined was redundant, extraneous,<sup>6</sup> as well as identification numbers for the cell towers associated with each entry for which he substituted his own derived geographical coordinates.<sup>7</sup>

Detective Edwards also testified that he could determine the call time, phone number called, whether the call was incoming or outgoing and the cell tower through which the cell phone communicated, based on the complete records he had received from Sprint Nextel. When Payne’s counsel objected to the Detective’s testimony on the ground that Detective Edwards needed to be qualified as an expert in order to interpret the data, the State responded that the actual records contained step-by-step instructions as to the use of the records, although neither the actual records nor the instructions were introduced into evidence.<sup>8</sup>

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<sup>5</sup> All references to exhibits are to those introduced by the State.

<sup>6</sup> The record is unclear what information Detective Edwards considered to be “extraneous” in the Sprint Nextel Call Detail Records that he received.

<sup>7</sup> Regarding the latitude and longitude, Detective Edwards stated:

[DETECTIVE EDWARDS]: \* \* \* And then the right-hand two columns are again cut and paste latitude and longitude for the cell tower information that corresponds to those calls.

<sup>8</sup> Detective Edwards later clarified, towards the end of his testimony, that the instructions were not part of the phone records, but were something he produced from another record:

[STATE’S ATTORNEY]: This is included as part of the cell records.

[DETECTIVE EDWARDS]: That is not - - this is something I produced from another record.

Detective Edwards proffered, outside of the presence of the jury, the procedure that he used to determine cell tower locations. According to him, the process required matching certain data points associated with a cell phone call to a table available on an unnamed “secure Web site” or on “an Excel spread sheet that comes with the records”, to determine the latitude and longitude of the corresponding cell tower.<sup>9</sup> Neither the “Excel spread sheet that comes with the records” nor the “secure Web site” that allegedly maintains cell tower information was admitted into evidence. Satisfied that Detective Edwards need not have been qualified as an expert to testify, as he did to that point, the trial judge permitted the State to further question the Detective about the location of the cell towers that transmitted Payne’s and Bond’s communications listed in Exhibits 12 and 11B.

Detective Edwards testified thereafter regarding the location of the first cell tower to which Bond’s cell phone allegedly connected on the night of the crime, a cell tower located on Menlo Drive, and opined that the cell tower was between one and a half to two miles from the crime scene.<sup>10</sup> The State then offered, as Exhibit 9, a map Detective

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<sup>9</sup> Detective Edwards explained his process for determining the location of a cell tower as follows:

[DETECTIVE EDWARDS]: Use the last two sets of numbers, first being the lag ID, second being the cell ID. Says match that to the table, which there is multiple ways you can get the cell tower information. There’s a Web site that maintains it, secure Web site. There’s an Excel spread sheet that comes with the records. Go in there, search that lag. It gives you latitude and longitude. Says you can use any mapping software. You look at it, find the point on the map where the cell site is located.

<sup>10</sup> Detective Edwards’s procedures were as follows:

[STATE’S ATTORNEY]: And you indicated you were able to look at cell phone records and check the time, the duration, things like that; is that

(continued . . .)

Edwards created upon which he had printed what he determined to be the location of the Menlo Drive tower as well as the location of the murder.<sup>11</sup> Detective Edwards further

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( . . . continued)

correct?

[DETECTIVE EDWARDS]: That's correct.

\* \* \*

[STATE'S ATTORNEY]: The direct connect, did it register off the cellular tower?

[DETECTIVE EDWARDS]: It did.

[STATE'S ATTORNEY]: Were you able to retrieve the information for that specific tower from that record?

[DETECTIVE EDWARDS]: Yes.

[STATE'S ATTORNEY]: Were you able to determine the location of that tower?

[DETECTIVE EDWARDS]: Yes.

[STATE'S ATTORNEY]: And where was the location that [sic] tower?

[COUNSEL FOR PAYNE]: objection.

THE COURT: Overruled for the reasons previously stated.

[DETECTIVE EDWARDS]: That was located at latitude and longitude of 39.350854 by negative 76.696565 located on Menlo Drive.

[STATE'S ATTORNEY]: How far away is that from the location of the crime scene?

[DETECTIVE EDWARDS]: Say approximately between one and a half to two miles as the bird flies.

<sup>11</sup> A copy of Exhibit 9 is attached at the end of this opinion as Appendix A. The Assistant State's Attorney questioned Detective Edwards about the map which contains concentric rings around what he determined to be the location of the towers. According to Detective Edwards, these rings only were units of measure:

[STATE'S ATTORNEY]: The mapping program that you used, does it show where the phone was?

[DETECTIVE EDWARDS]: It does not.

[STATE'S ATTORNEY]: Does it show where the tower is?

[DETECTIVE EDWARDS]: It shows it as I entered the latitude and longitude.

[STATE'S ATTORNEY]: The map has circles on it?

[DETECTIVE EDWARDS]: It does.

[STATE'S ATTORNEY]: Do the circles mean anything in regards to where this phone is?

(continued . . .)

testified that he determined Bond's cell phone also registered off of a second cell tower located on the Balmoral Towers building, which, according to him, was located approximately a mile from the crime scene, all of which was reflected on Exhibit 9, which was admitted into evidence.

An oversized aerial photograph, already admitted into evidence as Exhibit 2, of the area surrounding Villa Nova and Queen Anne Roads then was shown to Detective Edwards. Exhibit 2 contained a preprinted graphic showing the location where the victim's body was found and a sticker identifying the home of a witness. The State then asked Detective Edwards to place a sticker depicting the location of the Balmoral Towers cell tower on Exhibit 2, which he did.

The State then presented Exhibit 3 to Detective Edwards, which was another oversized aerial photograph showing, on a larger scale, the same general geographic area depicted on Exhibit 2 and which was admitted into evidence during Detective Edwards's testimony. On Exhibit 3, the State had identified the location where officers found the victim's body, in addition to the location of the residences of the victim, Payne, Bond and

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(. . . continued)

[DETECTIVE EDWARDS]: No.

[STATE'S ATTORNEY]: Do they mean anything in regards to the power of the tower so to speak?

[DETECTIVE EDWARDS]: No.

[STATE'S ATTORNEY]: Do they mean anything in regards to any scientific evidence?

[DETECTIVE EDWARDS]: No.

[STATE'S ATTORNEY]: Are they terms of measurement?

[DETECTIVE EDWARDS]: They are.

two others who had been investigated by police in connection with the murder.<sup>12</sup> Detective Edwards, at the State’s request, again identified and indicated by stickers the locations of the Menlo Drive cell tower and the Balmoral Towers cell tower on Exhibit 3.

Detective Edwards further testified that, by using the call entries in Exhibit 12—the edited records associated with Payne—he determined that Payne’s cell phone registered off of the Balmoral Towers cell tower on the night of the murder. The State then offered for admission Exhibit 10, a second map created by the Detective showing what he had determined to be the location of the Balmoral Towers cell tower, as well as the location of the crime scene.<sup>13</sup>

Based on Detective Edwards’s testimony, the Assistant State’s Attorney, in his closing, repeatedly urged that Payne’s and Bond’s Call Detail Records “point to their guilt” and the “evidence is significant . . . because it puts them right there”:

I am going to start with the cell phone calls, the evidence of the cell phone calls, the cell phone towers. The fact that Joseph Payne’s cell phone registered off of the Balmoral Towers a half mile away from the body of [the victim] at the time of the murder, Jason Bond’s cell phone registered off that same tower half a mile away at the time of the burning. But their cell phone calls point to their guilt. But that’s not standing alone.

\* \* \*

All right, starting with the cell phones. First I am going to talk about Jason Bond. What does the evidence of the cell phone towers tell you? First, you heard that on August 26, 2007, at 9:14 p.m. Jason Bond’s phone is registered off of Menlo Towers, a mile and a half, two miles away.

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<sup>12</sup> Exhibit 3 also contained a sticker previously placed by another witness indicating the residence of a sixth individual investigated by police.

<sup>13</sup> A copy of Exhibit 10 is attached at the end of this opinion as Appendix B. Exhibit 10, like Exhibit 9, shows a circle around what Detective Edwards determined to be the location of the Balmoral Towers cell tower, which is putatively a unit of measure.

But what is really interesting about the cell tower information is that you heard from Detective Edwards that between those periods of August 23rd and August 30 when he monitored the phone calls coming from Jason Bond's phone, he registered off the Balmoral Towers one time at 1:03 a.m. No other time. And that makes sense. He lives in the City. He has no reason to *come out to the County* except for a dump-off. He has no reason to come out to the County except to burn [the victim's] body.

Joseph Payne. . . . The tower information tells you that at 10:02 p.m., right at the time [the victim] is being murdered, the defendant's phone is registering off of the Balmoral Towers a half mile away from the body.

\* \* \*

Only one time did it register off of the Balmoral Tower. One time. And that was at the time 10:02 p.m. And that makes sense because Joseph Payne lives in the City. He has no reason to *come out to the County* to an isolated spot in the woods except for the dump-off. . . . That is why this information and this evidence is significant, and that is why it points to their guilt *because it puts them right there*.

(italics added).

Clearly, Detective Edwards's testimony had significance in the present case. Whether the Detective should have been qualified as an expert before being allowed to engage in the process of identifying the geographic location of the cell towers and the locations themselves depends on understanding just what are cell phone records and what their contents reveal. Because understanding the significance of cell phone use in varying contexts extends far beyond merely placing and receiving phone calls, into e-mailing, photographing and internet browsing, (*see* Maeve Duggan & Lee Rainie, Pew Research, Cell Phone Activities 2012, 2 (Nov. 25, 2012), *available at* <http://pewinternet.org/Reports/2012/Cell-Activities.aspx> (last visited Dec. 8, 2014) (finding that more than half of cell phone owners use their cell phone to take pictures, send or receive text messages, or access the internet)), the potential retrievable information from

cell phone use is extensive.<sup>14</sup> See Rick Ayers et al., Guidelines on Mobile Device Forensics 48-49 (May 2014), available at <http://dx.doi.org/10.6028/NIST.SP.800-101r1> (last visited Dec. 8, 2014).

A cell phone is, effectively, a sophisticated two-way radio that operates within a cellular network. Clifford S. Fishman & Anne T. McKenna, *Wiretapping & Eavesdropping: Surveillance in the Internet Age* § 28:2 (3d ed. 2014). A cellular network is a wireless network added to the Plain Old Telephone System (POTS), which is the regular, wired form of telecommunications. Larry E. Daniel & Lars E. Daniel, *Digital*

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<sup>14</sup> A non-exhaustive list of cell phone records that may be collected is:

- Subscriber and equipment identifiers
- Date/time, language, and other settings
- Phonebook/Contact information
- Calendar information
- Text messages
- Outgoing, incoming, and missed call logs
- Electronic mail
- Photos
- Audio and video recordings
- Multi-media messages
- Instant messaging
- Web browsing activities
- Electronic documents
- Social media related data
- Application related data
- Location information
- Geolocation data

Rick Ayers et al., Guidelines on Mobile Device Forensics 49 (May 2014), available at <http://dx.doi.org/10.6028/NIST.SP.800-101r1> (last visited Dec. 8, 2014). Data within a phone that is forensically germane, which is not here at issue, is often in the form of metadata. “Metadata” is “data about data” which can provide “information about the authorship” of a document or the “make of the cell phone” that created a picture. Larry E. Daniel & Lars E. Daniel, *Digital Forensics for Legal Professionals: Understanding Digital Evidence From the Warrant to the Courtroom* §§ 27, 27.2.3, 27.2.4 (2012). In the course of an investigation, this information can be used to identify when a piece of data, say a picture, was created, or when a website was accessed through a smartphone. *United States v. Breton*, 740 F.3d 1, 7 & n.8 (1st Cir. 2014). When metadata is presented in the course of litigation, it is accomplished through expert testimony. *E.g. United States v. Lanzon*, 639 F.3d 1293, 1297 (11th Cir. 2011).

Forensics for Legal Professionals: Understanding Digital Evidence From the Warrant to the Courtroom § 33.1 (2012). In order to add a cellular network to the POTS network, equipment is added to the existing telecommunications system. *Id.* One piece of that equipment is the cell tower and its attached antennae, which is itself one component of a cell site.<sup>15</sup> *Id.* It is through the cell tower that a cell phone maintains a connection to the telecommunications network. *Id.*

Cellular networks are comprised of a distribution of land areas called “cells”, each of which is served by at least one cell tower. *Id.* The arrangement of cells “is based on the concept of dividing the landscape into coverage cells typically three miles in diameter”, (Anna F. Tapp, Mapping the Impact of Vegetation and Terrain on Cellular Signal Levels 4 (2008), available at <http://libres.uncg.edu/ir/uncg/f/umi-uncg-1612.pdf> (last visited Dec. 8, 2014)); therefore, the term “cell” refers to a defined geographic region. Fishman & McKenna, *supra*, at §28:2. These cells are “arranged in the pattern of a hexagonal grid or honeycomb.” Aaron Blank, *The Limitations and Admissibility of Using Historical Cellular Site Data to Track the Location of a Cellular Phone*, 18 Rich. J. L. & Tech. 3, 5 (2011), citing *In re Application of the United States for an Order for Prospective Cell Site Location Info. on Certain Cellular Tel.*, 460 F. Supp. 2d 448, 450 (S.D.N.Y. 2006). A cellular network is designed so that the cells overlap,<sup>16</sup> (Tapp, *supra*, at 4), and the cell tower lies

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<sup>15</sup> The other component of the cell site is the base transceiver station, which handles communication with the cell phones “and facilitates communication between the wireless network and the landline network.” Daniel & Daniel, *supra*, at § 33.1.

<sup>16</sup> Overlapping cells is done to achieve what is called a “hand-off”. Because each cell tower  
(continued . . .)

where the several cells intersect, not at the center of a cell.<sup>17</sup> Fishman & McKenna, *supra*, at §28:2. The coverage of a particular cell may range from one-half mile,<sup>18</sup> particularly in the urban environment, to as far as thirty miles from the cell tower. Blank, *supra*, at 5.

There are a variety of factors affecting to which tower a cell phone will connect, beyond merely the distance between the originating cell phone, the receiving cell phone and the cell tower. These factors include technical characteristics of the site itself, such as the availability of a site and its location; technical characteristics of the antennae on a site, such as the direction they are facing; technical characteristics of the phone; and environmental and geographical factors:

First, the technical characteristics of cell sites may affect signal strength: (1) the number of sites available; (2) maintenance or repairs being performed; (3) height of the cell tower; (4) height above sea level; (5) wattage output; and (6) range of coverage. Second, technical characteristics of the antennas on cellular sites may affect signal strength, such as the number of antennas, the angle and direction the antenna is facing, height of each antenna, and call traffic processed through each antenna. Third, technical characteristics of the phone, such as the wattage output and generation of the phone's broadband capability, may affect signal strength. Fourth, signal strength may depend upon environmental and geographical factors,

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( . . . continued)

only reaches a limited area, as the user moves between cells, the signal must transfer from tower to tower through a process called a "hand-off". *Nextel Commc'ns of the Mid-Atl., Inc. v. Town of Brookline, Mass.*, 520 F. Supp. 2d 238, 242 (D. Mass. 2007). To effectuate the "hand-off", "there must be sufficient over-lapping coverage between adjoining cells". *Id.*

<sup>17</sup> A diagram and description of this arrangement is included at the end of the opinion as Appendix C.

<sup>18</sup> Newer technology which permits ever smaller cells is reducing the size of some cells to as small as individual floors within buildings. *Geolocal Privacy and Surveillance (GPS) Act: Hearing on H.R. 2168 Before the Subcomm. on Crime, Terrorism, and Homeland Security*, 112th Cong. 15 (2012) (statement for the record of Prof. Matt Blaze).

including the weather, topography, and level of urban development. Finally, indoor or outdoor use of the phone may alter the strength of the signal.

*Id.* at 6-7. *See also United States v. Evans*, 892 F. Supp. 2d 949, 956 (N.D. Ill. 2012) (describing the factors that could cause a phone to connect to a particular site, including the locations of buildings and high volumes of network traffic); Tapp, *supra*, at 7, 9 (“A radio wave is impacted most by the physical nature of the land cover”; “Without line of sight or near line of sight access to an antenna, the cellular phone will not receive a signal, regardless of its distance to the transmitter.”).<sup>19</sup>

All cell phones connect to a cell tower for, *inter alia*, communication.<sup>20</sup> Daniel & Daniel, *supra*, at § 33.2.1. “Communication” occurs when a phone call is initiated, or a text message sent. *See United Nations Global Pulse, Mobile Phone Network Data for Development* at 1 (Oct. 2013), available at [http://www.unglobalpulse.org/sites/default/files/Mobile%20Data%20for%20Development%20Primer\\_Oct2013.pdf](http://www.unglobalpulse.org/sites/default/files/Mobile%20Data%20for%20Development%20Primer_Oct2013.pdf) (last visited Dec. 8, 2014). Records of a communication via a cell phone may be classified as either external or internal; external records are those that exist outside of the cell phone, typically with the cell service provider, while internal records are those stored in the phone

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<sup>19</sup> A “transmitter” in the Tapp study was used as a substitute for a cell tower in order to demonstrate the importance of a line of sight in signal reception. Tapp, *supra*, at 9.

<sup>20</sup> A cell phone also connects to a cell tower to “register” with the cellular network. Daniel & Daniel, *supra*, at § 33.2; Fishman & McKenna, *supra*, at § 28:2.

itself.<sup>21</sup> See Timothy M. O’Shea & James Darnell, *Admissibility of Forensic Cell Phone Evidence*, 59 United States Attorneys’ Bulletin 42, 42 (2011).

External records may be designated as to whether they are historical or prospective in nature. See *United States v. Jones*, 908 F. Supp. 2d 203, 207 (D.D.C. 2012). Historical and prospective data not only differ because of the temporal nature of the records, but the purpose of their creation.<sup>22</sup> Historical data is that which has already been created and is already in existence as records kept in the course of the cell service provider’s business for “billing, coverage, and analytics” purposes, (Daniel & Daniel, *supra*, at § 33.3), and

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<sup>21</sup> Information internally contained in cell phones is beyond the scope of our inquiry, but we note that it includes objects and data such as metadata, as well as “pictures, call logs, text messages, and contact lists.” Timothy M. O’Shea & James Darnell, *Admissibility of Forensic Cell Phone Evidence*, 59 United States Attorneys’ Bulletin 42, 44 (2011).

<sup>22</sup> Prospective data is information collected “on a real-time basis going forward”, and is created, not because of the cellular service provider’s business, but as part of an ongoing investigation. *Jones*, 908 F. Supp. 2d at 207 (D.D.C. 2012) (explaining that prospective data is obtained “from the date of the magistrate judge’s order” authorizing collection of such data). See also Electronic Communications Privacy Act Amendments Act of 2011, S. 1011, 112th Cong. (2011) (proposing amendments separately addressing the retrieval of “records concerning . . . geolocation” and accessing “an electronic communications device to acquire geolocation information”). Prospective data is not in issue in the present case, even though it appears from the record of this case that the police in the present case used DNRs. Prospective data may include data derived from judicially authorized pen registers, which record numbers called from the phone at issue, and trap and trace devices, which capture the phone number of an incoming call, because these devices may only be installed with a showing “that the information likely to be obtained by such installation and use is relevant to an ongoing criminal investigation.” See 18 U.S.C. §3127(3), (4) (2012); 18 U.S.C. §3123(a)(1) (2012). A Dialed Number Recorder (“DNR”) is a device considered to be a type of pen register. See *State v. Marine*, 464 A.2d 872, 873 (Del. 1983) (“a dialed number recorder (known as a pen register”).

include subscriber list information,<sup>23</sup> text message details, Call Detail Records,<sup>24</sup> bill copies and payment histories. See Law Enforcement Legal Compliance Guide, Verizon 8 (May 5, 2008), available at [https://www.aclu.org/files/cellphonetracking/20120328/celltrackingpra\\_irvine7\\_irvineca.pdf](https://www.aclu.org/files/cellphonetracking/20120328/celltrackingpra_irvine7_irvineca.pdf) (last visited Dec. 8, 2014) (hereinafter “Verizon legal compliance guide”); *State v. Cotham*, No. M2012-01150-CCA-R3-CD, slip op. at 11 (Tenn. Crim. App. July 31, 2014) (testifying officer explained “that historical records were created by the phone company in the normal course of business”); Thomas A. O’Malley, *Using Historical Cell Site Analysis Evidence in Criminal Trials*, 59 United States Attorneys’ Bulletin 16, 22-23 (2011) (discussing cellular service providers’ “[r]ecordkeeping for business and maintenance”).

“Whenever a mobile phone call or transaction is made, a Call Detail Record (CDR) is automatically generated by the mobile network operator.”<sup>25</sup> United Nations Global Pulse, *supra*, at 1. The information contained in a Call Detail Record is not entirely

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<sup>23</sup> Subscriber list information includes “the listed names of subscribers of a carrier and such subscribers’ telephone numbers, addresses, or primary advertising classifications”. 47 U.S.C. § 222(h)(3)(A) (2012). See Ayers, *supra*, at 53 (listing types of subscriber information); Law Enforcement Legal Compliance Guide, Verizon 8 (May 5, 2008), available at [https://www.aclu.org/files/cellphonetracking/20120328/celltrackingpra\\_irvine7\\_irvineca.pdf](https://www.aclu.org/files/cellphonetracking/20120328/celltrackingpra_irvine7_irvineca.pdf) (last visited Dec. 8, 2014); Sprint, Subpoena Compliance, Law Enforcement Quick Reference Handbook ver. 3.1, 4, <https://info.publicintelligence.net/SprintSubpoenaManual.pdf> (last visited Dec. 8, 2014).

<sup>24</sup> A Call Detail Record is a “record-keeping system, usually used for accounting and administrative purposes, that tracks and records details about incoming and outgoing calls”. Julie K. Petersen, *The Telecommunications Illustrated Dictionary* 147 (2d ed. 2002).

<sup>25</sup> A “transaction” as used here refers to any instance of a telecommunication event. United Nations Global Pulse, *supra*, at 1.

standardized, (*id.*), but there are certain fields regularly shown, including the location of the cell tower the phone connects to at the start of the call. Ayers, *supra*, at 73. Any change in the tower to which a cell phone connects during a call, however, is not necessarily included in the Call Detail Record.<sup>26</sup> *Id.*

Cell tower location is typically presented in a Call Detail Record by way of a “cell tower identification number”. Daniel & Daniel, *supra*, at § 33.4. As presented in a Call Detail Record, this information is coded in ways specific to the cellular provider, typically including a LAC ID and a Cell ID.<sup>27</sup> *Id.* The specific location of a tower listed on the record then depends on determining, from those IDs, the cell tower which received the call, but not the location of that cell tower relative to the phone, nor, necessarily, any intervening cell towers which may have picked up the communication. Once the tower’s cell tower identification number is identified, those numbers are matched with a list of cell towers provided by the cellular company, where an address or latitude and longitude for the tower in question may be determined. *Id.* at § 33.4.

Against the foregoing technical background, the question becomes whether Detective Edwards, when testifying about the process by which he derived the

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<sup>26</sup> Other types of non-mandatory data include changes in service during a connection, supplementary services triggered as part of the connection, and additional billing information. Ayers, *supra*, at 73-74.

<sup>27</sup> In cell network parlance, the “local area code” or “LAC” ID “determines the area in which the cell and the respective base station BS is located.” U.S. Patent No. 7576692 col. 9 l. 55-56 (filed Sept. 29, 2004). A Cell ID is used to “describe the general location of a handset” as being within a particular cell. *What is Cell ID?*, AT&T, <https://developer.att.com/developer/tier2page.jsp?passedItemId=3100144> (last visited Dec. 8, 2014).

communication path of Payne's and Bond's cell phone calls, as well as his conclusion that the Menlo Drive cell tower and the Balmoral Towers cell tower were the most pertinent towers utilized by Payne's and Bond's cell phones,<sup>28</sup> needed to be qualified as an expert.<sup>29</sup> Answering this question also depends upon a review of Maryland Rules 5-701<sup>30</sup> and 5-702.<sup>31</sup>

A non-expert witness may offer opinion testimony in very limited circumstances, as proscribed by Maryland Rule 5-701, which allows a lay witness to offer an opinion that is

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<sup>28</sup> Historical data maintained by a cellular provider may be analyzed to determine the location of a cell phone in relation to a cell tower; most commonly through a process known as triangulation. *See* Fishman & McKenna, *supra*, at 28:2. The State argues before us that triangulation is not what Detective Edwards did, and we agree that his testimony fell short of identifying where Payne's and Bond's cell phones were located at the time of the pertinent calls on August 26 and 27. The State, however, certainly argued in closing the location of Payne's and Bond's cell phones put them in the vicinity of the crime scene at the same time as the crime, relying on Detective Edwards's testimony. Although triangulation is not germane to our holding, it is the likely next step in the analysis.

<sup>29</sup> The State did not argue, and therefore we need not address, that Detective Edwards was offered as a summary witness under Maryland Rule 5-1006. We would note, however, that production of the summary and voluminous documents to the opposing party is a prerequisite to the introduction of summary testimony. *See* *Davies v. State*, 198 Md. App. 400, 412, 17 A.3d 781, 787 (2011); *United States v. Bakker*, 925 F.2d 728, 736 (4th Cir. 1991) (examining Federal Rule of Evidence 1006, the analogous federal rule to Maryland Rule 5-1006).

<sup>30</sup> Maryland Rule 5-701 provides:

**Opinion testimony by lay witness.** If the witness is not testifying as an expert, the witness's testimony in the form of opinions or inferences is limited to those opinions or inferences which are (1) rationally based on the perception of the witness and (2) helpful to a clear understanding of the witness's testimony or the determination of a fact in issue.

<sup>31</sup> In responding to the question for certiorari the way we will, we do not address whether Detective Edwards could have been qualified as an expert.

both “(1) rationally based on the perception of the witness and (2) helpful to a clear understanding of the witness’s testimony or the determination of a fact in issue.” The rationale for the standard set by Rule 5-701 is two-fold: the evidence must be probative; in order to be probative, the evidence must be rationally based and premised on the personal knowledge of the witness. *See* Md. Rule 5-402.<sup>32</sup>

Expert testimony is governed by Maryland Rule 5-702. Rule 5-702 provides that expert testimony “may be admitted, in the form of an opinion *or otherwise*, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue.” (italics added). Testimony elicited from an expert provides useful, relevant information when the trier of fact would not otherwise be able to reach a rational conclusion; such information “is not likely to be part of the background knowledge of the judge or jurors themselves.” David H. Kaye, David E. Bernstein, & Jennifer L. Mnookin, *The New Wigmore: Expert Evidence* § 1.1 (2d ed. 2010). The trial judge, thus, determines whether to admit expert testimony dependent upon whether the witness could provide assistance to the finder of fact on the subject matter where a juror, lacking knowledge in a particular field, would resort to mere speculation and conjecture. *See* Rule 5-702.

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<sup>32</sup> Maryland Rule 5-402 provides:

**Relevant evidence generally admissible; irrelevant evidence inadmissible.** Except as otherwise provided by constitutions, statutes, or these rules, or by decisional law not inconsistent with these rules, all relevant evidence is admissible. Evidence that is not relevant is not admissible.

In *Ragland v. State*, 385 Md. 706, 870 A.2d 609 (2005), we were confronted with a question, similar to that which we confront in the instant case, of whether police officers could render an opinion, based on their experience and without having to be qualified as experts under Rule 5-702, that certain conduct by the defendant constituted a drug transaction. In determining that the officers had to be qualified as experts, we adopted “the approach as reflected in the 2000 amendment to Fed.R.Evid. 701 and [held] that Md. Rules 5-701 and 5-702 prohibit the admission as ‘lay opinion’ of testimony based upon specialized knowledge, skill, experience, training or education.” *Id.* at 725, 870 A.2d at 620. We required the police officers in *Ragland* to be qualified as experts, because the opinions they formed regarding the nature of the defendant’s actions as those of a drug transaction, were based on their “training and experience” derived from the “considerable time [they had devoted] to the study of the drug trade.” *Id.* at 726, 870 A.2d at 620.

We applied *Ragland* in *State v. Blackwell*, 408 Md. 677, 697, 971 A.2d 296, 307 (2009), in order to limit the State from offering “an expert witness in lay witness clothing.” In *Blackwell*, we explored whether an officer’s testimony regarding the result of a horizontal gaze nystagmus (HGN) test he had performed on Blackwell during a traffic stop allegedly reflecting Blackwell’s inebriation constituted expert testimony.<sup>33</sup> The State had asserted that the officer’s testimony was not subject to Rule 5-702, because the officer “did

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<sup>33</sup> The HGN test relies on the phenomenon wherein alcohol magnifies the effect of nystagmus, which is the “rapid involuntary oscillation of the eyeballs”. *Blackwell*, 408 Md. at 686, 971 A.2d at 301 (internal citations and quotation marks omitted). “Because nystagmus becomes more pronounced as the degree of alcohol impairment becomes greater,” the HGN test has been regularly used “as an indicator of alcohol consumption”. *Id.* at 687, 971 A.2d at 301.

not expressly provide an opinion as to Blackwell's state of intoxication." *Id.* at 693, 971 A.2d at 305 (internal quotation marks omitted). We observed, however, that the HGN test differs from other field sobriety tests with which a person could "rely upon his or her personal experience", because "testimony [about HGN] has no significance to the average juror without an additional explanation of the scientific correlation between alcohol consumption and nystagmus". *Id.* at 692, 971 A.2d at 304. In so doing, we opined that Rule 5-702 encompasses testimony regarding "more than just 'opinions.'" *Id.* at 693, 971 A.2d at 305.

In the present case the State asserts that *Ragland* and *Blackwell* are distinguishable from the present case because Detective Edwards did not render an opinion as to the location of Payne's and Bond's cell phones and that he merely read Sprint Nextel's business records and followed its directions in interpreting the data. We disagree. Detective Edwards engaged in a process to derive his conclusion that Payne's and Bond's cell phones communicated through the Menlo Park and Balmoral Towers cell towers that was beyond the ken of an average person; his conclusions regarding the communication path also required that he be qualified as an expert witness. Although the State urges that a "layperson with the same phone records and instructions could have determined the location of the cell sites" (even aside from the fact that the jury never received the full records and that the "step-by-step" instructions were developed from another source),

additional training and experience were required to parlay the process from which Detective Edwards derived the communication path of each call.<sup>34</sup>

A Call Detail Record contains a string of data unfamiliar to a layperson and is not decipherable based on “personal experience”. *See Blackwell*, 408 Md. at 692, 971 A.2d at 304. Detective Edwards, however, apparently relied on his experience to hone in on the entries in the Call Detail Records “pertinent” to the case. To understand, furthermore, the technical language of the entries in a Call Detail Record so that he could eliminate “extraneous” data in the records, Detective Edwards had to have relied on “knowledge, skill, experience, training or education.” *See Ragland*, 385 Md. at 725, 870 A.2d at 620.

Once Detective Edwards had culled the records, he further relied on his knowledge and experience to understand the significance of a “LAC ID” and “Cell ID” and how they related to identifying a particular cell tower amongst a cellular provider’s records. Detective Edwards’s testimony was that of an expert, because Call Detail Record entries are not entries typical of a cell phone bill where a juror could “rely upon his or her personal experience” to understand their meaning. *Blackwell*, 408 Md. at 692, 971 A.2d at 304.

Detective Edwards needed to be qualified as an expert in order to also opine regarding the Menlo Drive and Balmoral Towers cell towers. Using the data he derived

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<sup>34</sup> In *United States v. Evans*, 892 F. Supp. 2d 949 (N.D. Ill. 2012) and *Perez v. State*, 980 So. 2d 1126 (Fla. Dist. Ct. App.), *rev. denied*, 994 So. 2d 305 (Fla. 2008), *cert. denied*, 556 U.S. 1132 (2009), which were relied upon by the State in its brief, those courts’ analyses depended upon concluding that offering testimony as to the information in a Call Detail Record and using that information to determine the location of a cell tower does not require expert testimony. Those decisions did not provide any analysis of the process or the conclusion derived and are, therefore, inapposite.

from his experience and expertise, Detective Edwards urged that he had determined the location of the cell towers through which Payne's and Bond's cell phone connected on the night of the murder and their location relative to the crime scene, which only an expert could derive, based upon the fact that a cell phone may connect to several towers during a call which may not be recorded.

We draw sustenance for our requirement of expert testimony in the instant case from *United States v. Ganier*, 468 F.3d 920, 925 (6th Cir. 2006), in which the United States Court of Appeals explored whether a witness who testified regarding the results obtained by "running commercially-available software" to examine files on a computer was required to be qualified as an expert under Federal Rule of Evidence 702. The Government had urged that the witness's testimony was not based on "scientific, technical, or other specialized knowledge", because he was merely reading the results provided by running the software, and the testimony was of the same types of facts "that could be observed by any person reasonably proficient in the use of commonly used computer software". *Id.* at 925-26. The Sixth Circuit rejected the Government's argument and held that reading the results produced by running the program required expertise, explaining that a "layperson today may be able to interpret the outputs of popular software programs", but the "reports generated by the forensic software display a heading, a string of words and symbols, date and time, and a list of words" which would have been unfamiliar to a lay witness without specialized knowledge and experience. *Id.* at 926.

As a result of our determination that Detective Edwards was obligated to have been qualified as an expert, a retrial will be required, as the Court of Special Appeals concluded

as well. Should the State choose to pursue the case against Payne and the trial judge does not sever Payne's case from Bond's, the issue may again arise regarding the admissibility of six wiretapped telephone conversations captured on the Baltimore County police wiretap, in which Payne was not recorded as a participant. Payne has raised the issue of the admissibility of the calls in his cross-petition in which he asks, "Did the Court of Special Appeals err in ruling that wiretap statements made by respondent Bond but not respondent Payne were nevertheless admissible against Payne as statements by a party-opponent?"

The facts pertinent to the wiretapped statements were that Tyrice McCant and Brittany Keller were individually confronted by police two months after Glen Stewart's murder in October and early November 2007, respectively; both told police that Payne, Bond and others were with Keller the night of the incident assisting her with car trouble, thereby providing Payne and Bond with an alibi. At trial, both women recanted their stories. Keller also testified that she discussed the need to maintain the false alibi with Bond in December 2007 in one cell phone conversation, a taped version of which was played at trial and admitted into evidence against Payne as a statement of a co-conspirator. Keller also testified about a face-to-face meeting with Payne in December 2007; in her testimony, she said: "As far as Joey was concerned, I spoke with him about what was said by Jason, but I didn't know what he was going to do as far as the police were concerned."<sup>35</sup>

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<sup>35</sup> There was a seventh wiretapped telephone conversation introduced into evidence that was recorded on December 12, 2007 concerning the arrangement of a face-to-face meeting between Payne and Keller on the same day. The seventh call is not in issue before us, and we shall not address it.

Desmond Jones, an indicted co-conspirator who had pled guilty prior to trial, also testified at trial, during which five calls between Bond and Jones were played for the jury and also admitted into evidence against Payne as statements of co-conspirators. With respect to the six recorded telephone conversations, the State, in its brief, identified them as occurring within three hours of one another on December 12, 2007, after detectives had questioned Bond regarding the night of the crime, and described the calls as follows:

The first five calls are between Bond and Jones. In the first call, Bond tells Jones to go somewhere private so they can talk. In the second call, Bond relates that the “suits” just left and he warns Jones to “look out for them.” Bond adds:

You already know, yo that niggars are just smoking & drinkin,  
yo, all you really know, niggars left to get some gas one time,  
but other than that, all you really know.

\* \* \*

In the third call, Jones says “the Feds are on us Jay” because the “Armed Feds” had been there. In the fourth call, Jones tells Bond that “they” said they “just had enough time to catch up” with him (Jones) and they asked to “catch up with [him] another time[.]” Jones says that he asked for a number to call. Bond says: “For real for real if you don’t remember what to say then don’t call nobody yet” and explains that he told the detectives the same thing “Woody [Tyris McCant] and Brittany [Brittany Keller]” told them. In the fifth call, Bond asks if Jones has Brittany’s number or anyone else’s number. Jones says he has Brittany’s number.

In the sixth call, Bond calls Keller, who says she’s on her way to Payne’s house. The transcript of the conversation is as follows:

[BOND]: Alright that’s whats up, alright [inaudible] when, ah,  
when, you want to talk cause the D’s<sup>36</sup> came to talk to me  
today. So they caught me at my job, you see what I’m saying,  
so.

[KELLER]: Alright.

[BOND]: So when you went to talk to them, you told them,  
you told them that the, we came to help you right?

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<sup>36</sup> Keller testified that “the D’s” referred to the detectives.

[KELLER]: Yeah.  
[BOND]: Alright you said you ran out of gas, right?  
[KELLER]: Yeah.  
[BOND]: Alrigh[t], that's what I was won...I want to make sure the shit was cool. For real, for real.  
[KELLER]: Yeah.  
[BOND]: You ain't, you ain't  
[KELLER]: (Inaudible)  
[BOND]: Alright you ain't stay up there, none of that, right?  
[KELLER]: Uh...uh.  
[BOND]: Naa, I'm talking about that's what you told them, right?  
[KELLER]: Oh, yeah.  
[BOND]: Alright that's whats up, alright. I want to make sure I have this shit straight cause I ain't...its, its been awhile, you see what I'm saying?  
[KELLER]: Right  
[BOND]: Alright, shit good you know what I mean, but when you get there tell Joey to call me see what I'm saying, cause they, cause they, they . . .  
[KELLER]: Okay  
[BOND]: They basically, they basically asked me the same thing they asked ya'll and shit, you see what I'm saying, what was ya'll doing and shit, I mean, they asked me some times and shit. I was like I don't know no times, yo, you give 'em the best you can, you see what I'm saying?  
[KELLER]: Right.  
[BOND]: I went ahead, I hit 'em off  
[KELLER]: That's what's up, alright yeah, that's what's up, yeah, that's what I said.  
[BOND]: Yeah, that may help you out.  
[KELLER]: Ok, right, I'm a . . . I should be at his house probably like 15 minutes and I'll tell him what happened.  
[BOND]: What, what you be around somebody?  
[KELLER]: Uh, uh, no, I just don't be, you know sayin nothing over the phone  
[BOND]: I can dig it, I can dig it.

(Extract and transcript references omitted).

At trial, the State argued in support of the introduction of the six telephone calls against Payne and Bond that the conversations were statements of co-conspirators under

Rule 5-803(a)(5).<sup>37</sup> The State asserted that the conspiracy forming the foundation for the introduction of these statements was a conspiracy to conceal the murder of Stewart, to which Keller and Bond had provided an alibi. The State argued to the trial court that Keller's face-to-face conversation with Payne on December 12, 2007, proved Payne's participation in the conspiracy to conceal. Months prior to trial, the State had proffered that DNR Reports reflecting a number of telephone calls between Payne, McCant, Keller, Bond, Johnson and Jones also linked the individuals together in a conspiracy to conceal.

Payne argued before the trial court that he was not a part of any conspiracy to conceal, that he was not a participant in any of the six calls and that the statements made during the calls were inadmissible hearsay. According to Payne, the State just did not prove that he was a part of any conspiracy.

Before the phone call between Bond and Keller was played at trial, the trial judge specifically questioned how it was admissible against Payne and ultimately decided that "all the players knew that" a false alibi had been offered to police, which was "the genesis of conspiracy." In so ruling, the judge referred to Keller's testimony regarding her face-to-face meeting with Payne as sufficient to provide the foundation for a conspiracy to allow the six statements to come in as to Payne:

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<sup>37</sup> Maryland Rule 5-803(a)(5) states:

The following are not excluded by the hearsay rule, even though the declarant is available as a witness:

(a) Statement by party-opponent. A statement that is offered against a party and is: \* \* \*

(5) A statement by a coconspirator of the party during the course and in furtherance of the conspiracy.

THE COURT: \* \* \* Seems to me on all the evidence before me that the players all knew that that was the story, and that is the genesis of conspiracy. She talked to them directly by phone with one; she talked to that other person face-to-face. I think that is sufficient foundation to allow the statements to come in.

During Jones's testimony, the trial judge indicated, based upon her prior ruling as to the admissibility of the Bond and Keller call, that she thought there was an adequate foundation to admit the five calls between Bond and Jones against Payne and Bond.

Before the Court of Special Appeals, the State again relied on Keller's testimony about her face-to-face meeting with Payne as sufficient proof of a conspiracy to conceal; the State also argued that "efforts to burn the victim's body" was additional proof of a conspiracy to conceal.

The Court of Special Appeals disagreed with the trial court and denied the admissibility of the statements against Payne or Bond as statements of co-conspirators under Rule 5-803(a)(5), because there was no evidence of a conspiracy to conceal:

There is no evidence in this case that there was an express agreement between the parties, *at the outset*, to engage in concerted acts of concealment after committing the kidnapping and murder. The chief objective of appellants in committing the substantive offenses of kidnapping and murder was to punish and/or retaliate against [the victim] because they suspected him of reporting the robbery of [another] to police. Because the recordings admitted into evidence were neither hearsay statements of an agreement entered into *at the outset of the substantive criminal event* nor an express agreement to conceal *in furtherance of attaining the chief objective, i.e., to silence* [the victim], the hearsay statements are inadmissible to establish an express conspiracy of concealment.

*Payne & Bond*, 211 Md. App. at 250, 65 A.3d at 171-72. The Court of Special Appeals seemingly stated, however, that the telephone calls were admissible as statements of party

opponents under Rule 5-803(a)(1)<sup>38</sup> as to Payne, although the State before us questioned that the paragraph in the Court of Special Appeals opinion so held; the paragraph stated:

Here, we have no difficulty concluding that Bond's statements in the wiretaps were admissible against him as statements by a party opponent. If there is any problematic issue, that concerns whether those statements were also admissible against Payne. The only recording involving Payne is the last one between him and Keller. In that recording, Keller informs Payne that "Jason just called me and they came to see him so umm I don't know if you...inaudible...me to tell you when I get there or what's up," to which Payne replied, "okay, just tell me when you get here." Keller testified at trial that, following this phone conversation, she went and saw Payne directly. At that time, she told Payne about her conversation earlier that day with Bond, inferentially referring to the conversation about maintaining the false alibi in the face of further police investigation. We are persuaded the statements were admissible as to each party. We also note that, during jury instructions, the trial court instructed the jury that it was to "consider the evidence as it relate[s] to each defendant separately and you must consider separately each offense charged against each defendant."

*Payne & Bond*, 211 Md. App. at 252, 65 A.3d at 172-73. Later in the opinion, however, our intermediate appellate court stated, "Accordingly, we are persuaded that the wiretap recordings were admissible as to both Payne and Bond as statements of a party opponent. The trial court properly exercised its discretion in admitting them, albeit on grounds different than argued by the parties at trial." *Id.* at 253-54, 65 A.3d at 173.

The State, nevertheless, urges before us that, "[t]he Court of Special Appeals did not hold that Bond's statements were admissible against Payne; it held that Bond's

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<sup>38</sup> Maryland Rule 5-803(a)(1) states:

The following are not excluded by the hearsay rule, even though the declarant is available as a witness:

(a) Statement by party-opponent. A statement that is offered against a party and is:

(1) The party's own statement, in either an individual or representative capacity;

statements were admissible against him as statements of a party-opponent.” The State also argues that *Bruton v. United States*, 391 U.S. 123, 88 S.Ct. 1620, 20 L.Ed.2d 476 (1968) is not violated because the telephone conversations did not implicate “Payne as an accomplice to the kidnapping and murder of Stewart”. Finally, the State argues that the introduction of the recordings of the six telephone calls against Payne was harmless error, because “there was a plethora of other evidence . . . .”

Before us, Payne disputes that the party opponent rule, Rule 5-803(a)(1), applies and permits the admission of the six telephone calls because Bond was not his party opponent; he unequivocally questions the evidentiary foundation for the admission of the six recordings at all. The error in the admission of the recordings is not harmless, he states, because there is no evidence that he was a part of any conspiracy to conceal.

The party opponent rule, Rule 5-803(a)(1), provides that, “A statement that is offered against a party and is . . . [t]he party’s own statement, in either an individual or representative capacity” is “not excluded by the hearsay rule”. We have a dearth of authority in Maryland interpreting who a party opponent is, so we turn to our federal counterparts for assistance.

Federal Rule 801(d)(2)(A),<sup>39</sup> adopted in 1975, is on all fours with our Rule 5-803(a)(1). In interpreting who is a party opponent in the context of a criminal case in which

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<sup>39</sup> Federal Rule 801(d)(2)(A) states:

**(d) Statements That Are Not Hearsay.** A statement that meets the following conditions is not hearsay: . . .

**(2) An Opposing Party’s Statement.** The statement is offered against an opposing party and: **(A)** was made by the party in an individual or representative capacity

there are multiple defendants, the Second and Eleventh Circuit Courts of Appeals have decided that a co-defendant cannot be a party opponent; only the Government is. In *United States v. Harwood*, 998 F.2d 91, 94 (2d Cir. 1993), Harwood and McKee were jointly tried. McKee had made statements to a journalist about Harwood's involvement, which Harwood tried to introduce at trial as exculpatory, and on appeal, argued that the statements were admissions by a party opponent under Federal Rule of Evidence 801(d)(2)(A). The trial court rejected the evidence, and the Second Circuit affirmed, "because the admission sought to be introduced was made by a co-defendant who is not a party opponent. The Government is the party opponent of both defendants." *Id.* at 97-98, quoting *United States v. Gossett*, 877 F.2d 901, 906 (11th Cir. 1989) (*per curiam*), *cert. denied*, 493 U.S. 1082, 110 S.Ct. 1141, 107 L.Ed.2d 1045 (1990). In the instant case, Payne and Bond were tried together, and the State is the opponent of both; neither of them was the party-opponent of the other.

Whether the six telephone calls can be properly admitted against Payne as statements of a co-conspirator under Rule 5-803(a)(5) with regard to a conspiracy to conceal depends upon the State having advanced a prima facie case that a conspiracy to conceal existed and, secondly, Payne's agreement to the conspiracy. Rule 5-803(a)(5) states that "a statement by a coconspirator . . . during the course and in furtherance of the conspiracy . . ." is "not excluded by the hearsay rule". The Court of Special Appeals determined that no conspiracy to conceal existed, so that Rule 5-803(a)(5) was not implicated as to Payne and Bond, opining that there was an absence of proof of "an express agreement between the parties, at the outset, to engage in concerted acts of concealment

after committing the kidnapping and murder”, (*Payne & Bond*, 211 Md. App. at 250, 65 A.3d at 171), and further stated:

Because the recordings admitted into evidence were neither hearsay statements of an agreement entered into at the outset of the substantive criminal event nor an express agreement to conceal in furtherance of attaining the chief objective, i.e., to silence Stewart, the hearsay statements are inadmissible to establish an express conspiracy of concealment.

*Id.* at 250, 65 A.3d at 171-72. In so doing, our intermediate appellate court relied on the strictures of *State v. Rivenbark*, 311 Md. 147, 158, 533 A.2d 271, 276 (1987), which held that the “statements made in connection with acts of concealment performed long after the conspirators have realized all benefits from the offense which they had agreed to commit” are inadmissible.

Although we agree with our intermediate appellate court that *Rivenbark* is controlling regarding the conspiracy to conceal, we disagree that there was not a prima facie showing of a conspiracy to conceal that could have gone to the jury,<sup>40</sup> (*see Hill v.*

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<sup>40</sup> For example, facts pertaining to the existence of a conspiracy to conceal entered into after the commission of the crime arise from Desmond Jones’s testimony:

[STATE’S ATTORNEY]: Did there come a time when you began to talk to the others involved?

[JONES]: Yes.

[STATE’S ATTORNEY]: What were you talking about?

[JONES]: What we goin’ to say if they ever pull us up, the detectives that would grab us.

[STATE’S ATTORNEY]: Did there come a time when the police began talking to you?

[JONES]: Couple months later.

[STATE’S ATTORNEY]: What was the story that you folks had come up with?

[JONES]: That they was going to use [Keller], say she caught a flat tire, we drove out there to fix it for her.

*State*, 231 Md. 458, 190 A.2d 795 (1963)), though proof of Payne’s participation was lacking.

In *Rivenbark*, 311 Md. at 150, 533 A.2d at 272, Ronald Johnson and Billy Rivenbark robbed and murdered Johnson’s aunt. That same day, after the murder, Rivenbark told Shirley Wilson, Johnson’s girlfriend, that “[w]e got our alibis . . . . As long as everyone stays cool everything will be fine.” *Id.* at 151, 533 A.2d at 272. Rivenbark later told Wilson that he and Johnson “should not see each other for a while”, and Johnson inflicted numerous beatings on Wilson in order to ensure her silence. *Id.* at 151, 533 A.2d at 272-73.

In *Rivenbark*, we expressly considered “whether every criminal conspiracy includes, by implication, a subsidiary conspiracy to conceal evidence of the substantive offense that the conspirators agreed to commit.” *Id.* at 152-52, 533 A.2d at 273. We recognized two separate instances where a conspiracy to conceal may arise; at the outset of the underlying criminal act or after the completion of the act as a second conspiracy. In responding to the issue, we rejected “the theory that every criminal conspiracy includes, by implication, a subsidiary conspiracy to conceal evidence of the substantive offense that the conspirators agreed to commit.” *Id.* at 158, 533 A.2d at 276. We recognized, however, that “if the conspirators expressly agree at the outset to engage in concerted acts of concealment after committing a substantive offense, then statements made in connection with those acts are admissible.” *Id.* Regarding a subsequent conspiracy, we explained in *Rivenbark* that the evidence did not show an ongoing distinct and explicit agreement to conceal the underlying offense:

In this case, neither conspirator distinctly or explicitly communicated to the other his assent to the “agreement.” Rivenbark's statement to Wilson that he and Johnson should not see one another for a while, and the beatings Johnson inflicted on Wilson, are unilateral acts that in no way indicate the presence of an agreement. While Rivenbark's statement that “We got our alibis,” and Johnson's compliance with Rivenbark's order to “make sure the stuff was gone,” may suggest an obvious understanding to conceal the crime soon after it happened, this evidence does not show an ongoing distinct and explicit agreement to conceal.

*Id.* at 159, 533 A.2d at 277.

Agreement is the essence of a conspiracy, as we opined in *State v. Johnson*, 367 Md. 418, 424, 788 A.2d 628, 632 (2002), in which we further stated that, “This Court consistently has defined conspiracy as the agreement between two or more people to achieve some unlawful purpose or to employ unlawful means in achieving a lawful purpose.” We have summarized the elements of a criminal conspiracy to be:

The essence of a criminal conspiracy is an unlawful agreement. The agreement need not be formal or spoken, provided there is a meeting of the minds reflecting a unity of purpose and design. In Maryland, the crime is complete when the unlawful agreement is reached, and no overt act in furtherance of the agreement need be shown.

*Townes v. State*, 314 Md. 71, 75, 548 A.2d 832, 834 (1988). *See Mason v. State*, 302 Md. 434, 444, 488 A.2d 955, 960 (1985) (stating that the “agreement is the crime, and the crime is complete without any overt act”); *Monoker v. State*, 321 Md. 214, 221, 582 A.2d 525, 528 (1990) (“The gist of conspiracy is the unlawful agreement. . . . The crime is complete when the unlawful agreement is made”).

As to Payne, the State did not prove that he agreed to participate in a conspiracy to conceal, either from the beginning or subsequent to the murder. Although the trial court relied exclusively on Keller's testimony about her face-to-face meeting with Payne to

establish that he agreed with the conspiracy to conceal, in which she said, “As far as Joey was concerned, I spoke with him about what was said by Jason, but I didn’t know what he was going to do as far as police were concerned”, Keller related no response from Payne reflecting that he had agreed to participate in an agreement to conceal.

In an attempt to augment what the trial court relied upon to determine that Payne was part of a conspiracy to conceal, the State before us refers to the DNR reports showing telephone calls, without corresponding content, that occurred between Payne, Keller, McCant, Bond, Jones and Johnson during the time that McCant and Keller were interrogated by police. In addition to the fact that the trial court did not rely on these to admit the calls, the DNRs do not provide additional proof that Payne expressly agreed to a conspiracy to conceal. The DNRs only provide a list of phone numbers dialed from specific phones, without any proof of who dialed the numbers, let alone any content from the calls.

The State’s final allegation is that Jones’s testimony about the burning of the victim’s body shows that Payne conspired to conceal, although this also was not relied upon by the trial court in the admission of the statements. Jones’s testimony, however, does not reflect that Payne was a party in a conspiracy to conceal.<sup>41</sup>

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<sup>41</sup> At trial, Jones testified:

[STATE’S ATTORNEY]: What happened when you got to the location?  
[JONES]: Me and Bond stayed in the car. Payne and Chris got out, went back to the victim.  
[STATE’S ATTORNEY]: Were you watching what they did?  
[JONES]: Really couldn’t say but I seen the fire when it happened.  
[STATE’S ATTORNEY]: What happened after the fire?  
[JONES]: They ran back to the car and got in.  
[STATE’S ATTORNEY]: Johnson and Payne?  
[JONES]: Yes.

Should the State pursue a joint trial of Payne and Bond and wish to introduce as evidence the six wiretapped recordings against Bond, there are further inquiries that the Circuit Court must make.

The State asserts that the six recordings were non-testimonial and, therefore, could be played during a joint trial of Payne and Bond and introduced into evidence only against Bond, without violating the tenets of *Bruton v. United States*, 391 U.S. 123, 88 S.Ct. 1620, 20 L.Ed.2d 476 (1968). Payne disagrees, asserting that, under *Bruton*, his trial should be severed from Bond, because he cannot adequately defend himself under the Confrontation Clause should the recordings be played. We agree, however, with the State as to the *Bruton* issue, because the six wiretapped conversations are non-testimonial in character under *Crawford v. Washington*, 541 U.S. 36, 124 S.Ct. 1354, 158 L.Ed.2d 177 (2004), and so do not implicate Payne's Confrontation Clause rights.

*Crawford* defines the analysis for determining whether the admission of a hearsay statement violates an accused's right of confrontation under the Sixth Amendment.<sup>42</sup> *Crawford*, 541 U.S. at 68, 124 S.Ct. at 1374, 158 L.Ed.2d at 203. *See Cox v. State*, 421 Md. 630, 642, 28 A.3d 687, 694 (2011) (noting that "we analyze the admission of out-of-

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<sup>42</sup> The Sixth Amendment of the United States Constitution, incorporated to the States through the Fourteenth Amendment, (*Pointer v. State of Texas*, 380 U.S. 400, 403, 85 S.Ct. 1065, 1066, 13 L.Ed.2d 923, 924 (1965)), provides:

In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the assistance of counsel for his defense.

court statements against criminal defendants under the framework created by the United States Supreme Court in *Crawford v. Washington*”). The Confrontation Clause analysis is triggered when hearsay, sought to be introduced, is “testimonial” in nature. *Crawford*, 541 U.S. at 68, 124 S.Ct. at 1374, 158 L.Ed.2d at 203. See *Cooper v. State*, 434 Md. 209, 233, 73 A.3d 1108, 1122 (2013) (“[T]he right of confrontation is implicated only when two conditions are met: the challenged out-of-court statement or evidence must be presented for its truth and the challenged out-of-court statement or evidence must be ‘testimonial.’”).

While the *Crawford* Court did not provide a comprehensive definition of the word “testimonial”, it did provide several specific examples of such evidence. *Crawford*, 541 U.S. at 68, 124 S.Ct. at 1374, 158 L.Ed.2d at 181 (listing “prior testimony at a preliminary hearing, before a grand jury, or at a former trial” and “police interrogations”). We have held that the proper inquiry to determine whether a statement is testimonial is “whether a reasonable person in the declarant’s situation would have made the statement ‘with a primary purpose of creating an out-of-court substitute for trial testimony.’” *Cox*, 421 Md. at 650, 28 A.3d at 698, quoting *Michigan v. Bryant*, 562 U.S. \_\_\_, \_\_\_, 131 S.Ct. 1143, 1155, 179 L.Ed.2d 93, 107 (2011).

In *Cox*, we considered whether statements implicating Cox, made by a co-conspirator to a jailhouse acquaintance cooperating with the authorities, were testimonial and could be introduced against Cox through the testimony of the jailhouse cooperator. When we considered whether the inmate’s testimony violated Cox’s Confrontation Clause rights, we held that the “spontaneous” statements implicating Cox made by the co-conspirator during the jailhouse discussion were non-testimonial, because “the interaction

was casual conversation between private acquaintances” and the statements “were not made for the primary purpose of creating a substitute for trial testimony.” *Id.* at 650-51, 28 A.3d at 699. As a result, we affirmed Cox’s conviction.

As in *Cox*, the six wiretapped recordings in the present case were “more akin to casual remarks to an acquaintance than formal declarations to an official”, *id.* at 650, 28 A.3d at 699, and, thus, were non-testimonial under *Crawford*. Various of our brethren in the federal system, when faced with wiretap evidence, have also recognized that the conversations are not testimonial. *United States v. Ramirez*, 479 F.3d 1229, 1249 (10th Cir. 2007) (holding statements of co-conspirators procured through a wiretap are non-testimonial); *United States v. Hendricks*, 395 F.3d 173, 181 (3d Cir. 2005) (holding that surreptitiously monitored private conversations and statements contained in wiretap recordings are not testimonial for purposes of *Crawford*, because, *inter alia*, “the speakers certainly did not make the statements thinking that they ‘would be available for use at a later trial’”, quoting *Crawford*, 541 U.S. at 52, 124 S.Ct. at 1364, 158 L.Ed.2d at 193).

Because *Crawford* is not implicated by the six recordings, Payne’s *Bruton* rights are not triggered. *Bruton* rights are triggered when testimonial hearsay is introduced into evidence. In *Bruton*, the Supreme Court addressed “whether the conviction of a defendant at a joint trial should be set aside although the jury was instructed that a codefendant’s confession inculcating the defendant had to be disregarded in determining his guilt or innocence.” *Bruton*, 391 U.S. at 124-25, 88 S.Ct. at 1622, 20 L.Ed.2d at 478. During Bruton’s joint trial with Evans, Evans’s out of court confession inculcating both defendants had been admitted into evidence. The trial judge had given a limiting instruction to the

jury to consider the confession only against Evans, but not against Bruton. The United States Court of Appeals for the Eighth Circuit affirmed. *Bruton v. United States*, 375 F.2d 355 (1967).

The Supreme Court reversed. The Court held that the trial court's limiting instruction did not sufficiently protect Bruton's Sixth Amendment rights, because Evans had not testified, the introduction of Evans's confession added substantial weight to the Government's case against Bruton, and Bruton could not cross-examine Evans. *Bruton*, 391 U.S. at 137, 88 S.Ct. at 1628, 20 L.Ed.2d at 485. The Court opined that a limiting instruction was insufficient to protect Bruton's right to cross-examine and that there was no basis upon which to admit Evans's confession against Bruton. When "the powerfully incriminating extrajudicial statements of a codefendant, who stands accused side-by-side with the defendant, are deliberately spread before the jury in a joint trial", the Court concluded, "limiting instructions [were not acceptable] as an adequate substitute for [Bruton's] constitutional right of cross examination." *Id.* at 135-36, 137, 88 S.Ct. at 1628, 20 L.Ed.2d at 483, 484. *Bruton*, then, is premised upon the Confrontation Clause of the Sixth Amendment and limits joinder, as well as the efficacy of cautionary instructions when evidence of a testimonial nature is introduced. See *United States v. Avila Vargas*, 570 F.3d 1004, 1008-09 (8th Cir. 2009) (holding that *Bruton* does not apply to non-testimonial co-conspirator statements); *United States v. Johnson*, 581 F.3d 320, 326 (6th Cir. 2009) (opining that "Because it is premised on the Confrontation Clause, the *Bruton* rule, like the Confrontation Clause itself, does not apply to nontestimonial statements"); *United States v. Smalls*, 605 F.3d 765, 768 n.2 (10th Cir. 2010) (noting that "the *Bruton*

rule, like the Confrontation Clause upon which it is premised, does not apply to nontestimonial hearsay statements”); *United States v. Figueroa-Cartagena*, 612 F.3d 69, 85 (1st Cir. 2010) (noting that it is “necessary to view *Bruton* through the lens of *Crawford*”).

As a result, because the six wiretapped recordings in this case are non-testimonial, their admission in a joint trial does not implicate Payne’s Confrontation Clause rights under *Crawford* and *Bruton*.

The trial court, nevertheless, must consider whether joinder or a cautionary instruction will sufficiently avoid prejudice to Payne under the tenets of Maryland Rule 4-253(c):

**Prejudicial joinder.** If it appears that any party will be prejudiced by the joinder for trial of counts, charging documents, or defendants, the court may, on its own initiative or on motion of any party, order separate trials of counts, charging documents, or defendants, or grant any other relief as justice requires.

Because we have stated that Payne was not a party to a conspiracy to conceal and not a party-opponent of Bond, the six telephone recordings are not admissible against Payne under a hearsay exception. We acknowledged in *Galloway v. State* that “[p]rejudice within the meaning of Rule 4-253 is a ‘term of art’ and refers only to prejudice resulting to the defendant from the reception of evidence that would have been inadmissible against that defendant had there been no joinder.” 371 Md. 379, 394 n.11, 809 A.2d 653, 663 n.11 (2002), quoting *Ogonowski v. State*, 87 Md. App. 173, 186-87, 589 A.2d 513, 520 (1991). Therefore, the implication of Rule 4-253(c) also must be considered on remand in this case, insofar as Payne is concerned.

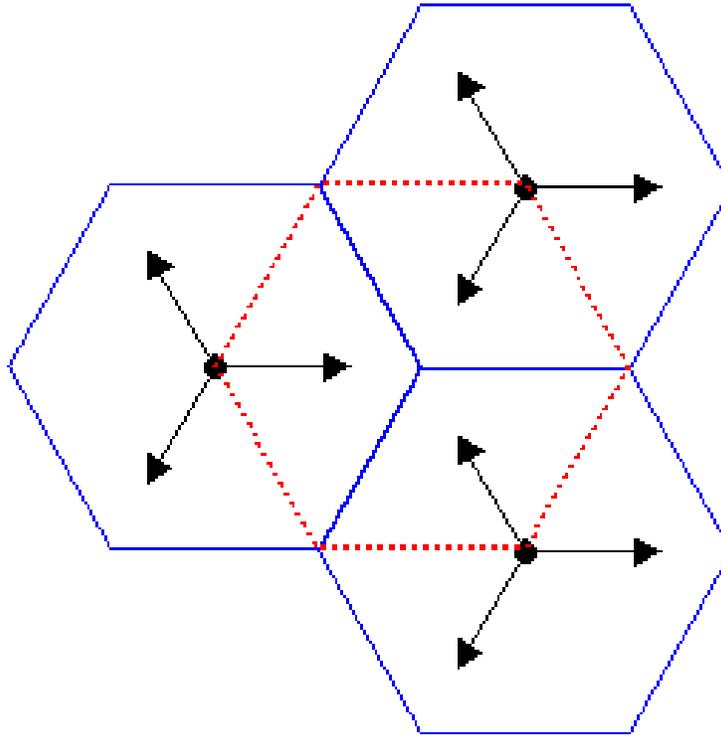
In conclusion, based on our review of the intricacies of “cell phone records” and the training, experience and expertise required by Detective Edwards to determine the alleged cell towers with which Payne’s and Bond’s cell phones communicated, we conclude that Detective Edwards should have been qualified as an expert witness under Maryland Rule 5-702, and remand the cases for a new trial. As guidance in the new trial, we also conclude that Bond’s statements in the six recordings obtained off of wiretaps could not be admitted against Payne as the statement of a party opponent and that, while there may have been sufficient evidence to establish a prima facie showing of a conspiracy to conceal, the evidence did not support the determination that Payne was a part of that conspiracy.

**JUDGMENT OF THE COURT OF SPECIAL APPEALS VACATED. CASE REMANDED TO THE COURT OF SPECIAL APPEALS WITH INSTRUCTIONS TO VACATE THE JUDGMENT OF THE CIRCUIT COURT FOR BALTIMORE COUNTY AND REMAND THE CASE TO THE CIRCUIT COURT FOR A NEW TRIAL CONSISTENT WITH THIS OPINION. COSTS IN THIS COURT AND THE COURT OF SPECIAL APPEALS TO BE PAID BY THE PETITIONER.**





## APPENDIX C



Most people see the cell as the [solid-lined] hexagon, being defined by the tower in the center, with the antennae pointing in the directions indicated by the arrows. In reality, the cell is the [dotted-lined] hexagon, with the towers at the corners . . . . The confusion comes from not realizing that a cell is a geographic area, not a point. We use the terms 'cell' (the coverage area) and 'cell site' (the base station location) interchangeably, but they are not the same thing.

Tom Farley & Mark van der Hoek, *Cellular Telephone Basics*, Private Line (Jan. 1, 2006, 8:55 PM), [http://www.privateline.com/mt\\_cellbasics/](http://www.privateline.com/mt_cellbasics/).

Circuit Court for Baltimore County, Maryland  
Case Nos. K-08-0027; K-08-0026  
Argued: September 10, 2014

IN THE COURT OF APPEALS  
OF MARYLAND

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No. 85  
September Term, 2013

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STATE OF MARYLAND  
v.  
JOSEPH WILLIAM PAYNE  
&  
JASON BOND

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Barbera  
Harrell  
Battaglia  
Greene  
Adkins  
McDonald  
Raker, Irma S. (Retired,  
Specially Assigned),

JJ.

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Concurring Opinion by McDonald, J.  
which Barbera, C.J., and Harrell, J., join

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Filed: December 11, 2014

I concur in the Court's judgment, but not in its opinion. When a judge on this Court concurs in the judgment only, it is helpful to explain why. Then the reader knows whether there is a substantive reason for that judge's reticence and can assess whether that reason has any merit. So – here goes.

The Majority holds that Detective Brian Edwards should have been qualified by the trial court as an expert under Maryland Rule 5-702 to testify as to the process for determining the communication path of the defendants' cell phones and as to the importance of two particular cell towers. Majority slip op. at 3. This holding appears based on a conclusion that Detective Edwards gave expert opinion testimony at trial. In my view, he did not.

At the trial, Detective Edwards essentially applied the telephone company's key to the cell phone records of the defendants and determined that their cell phones had registered off certain cell phone towers in the vicinity of the crime during its commission and cover-up. As the trial judge stated, the process that Detective Edwards used to locate the cell towers associated with particular calls on the telephone company records "isn't rocket science." An analogy closer to home may illustrate the point. A particular court may denominate a case with a designation like "Civ. No. S - 14 - 0026." One who has the key knows that this means that the particular action is a civil case ("Civ. No.") assigned to Judge Smith ("S") and was the 26th such case ("0026") filed in the court in 2014 ("14"). One need not be a legal expert (*i.e.*, a lawyer) to decipher the case designation, although perhaps a lawyer would be necessary to explain accurately the claims and defenses in the action.

Thus, in my view, Detective Edwards did not provide expert testimony and need not have been qualified as an expert to provide that testimony.

Why, then, do I concur in the judgment? In my view, there was a gap in the prosecution's proof that undermined the probative value of Detective Edwards' testimony. Information concerning the location of the cell phone towers associated with particular calls was only probative if it was evidence of where the defendants – or at least their phones – were located at the time of those calls. At the end of the trial the prosecutor argued that the fact that calls on the defendants' cell phones registered off cell phone towers in close proximity to the crime scenes was corroboration for the testimony that the defendants had been present and participated in those crimes.

But there was no testimony at trial as to the significance of the location of a cell phone tower in relation to the location of the user of the phone. In some communication technologies, the path taken by a message over the communications infrastructure may vary and the intermediate route may reveal little about the location of the sender or receiver. For example, each time one obtains a copy of this opinion over the Internet, the transmission may take a very different route to the same destination.<sup>1</sup>

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<sup>1</sup>See W. Stallings, *Data and Computer Communications* (10th ed. 2014) (Chapter 19.1 - "Routing in Packet-Switching Networks") at 591-601.

Based on the technical discussion in the Majority opinion on cell phone technology<sup>2</sup> and some readily available technical sources,<sup>3</sup> it appears that the inference urged by the prosecutor was likely correct. But we do not want jurors checking readily available technical resources – or even judicial opinions – to obtain technical information concerning the significance of the evidence before them. A properly qualified expert – perhaps an electrical engineer or a communications engineer – was needed. It would likely not have been the most sophisticated testimony concerning wireless communications, but it is not something that can be said to be within the common knowledge of a lay juror. Without such testimony, the jury was left to speculate – perhaps reaching a correct conclusion, but still speculating – as to the significance of the cell towers’ location.

In the absence of expert testimony that would allow the jury to understand the significance of the towers’ location, the testimony concerning the location of the cell towers was not admissible under Maryland Rules 5-402 (only relevant evidence admissible) and 5-403 (even relevant evidence may be excluded if relevance is outweighed by confusion).

Chief Judge Barbera and Judge Harrell have advised that they join this opinion.

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<sup>2</sup>Majority slip op. at 11-14.

<sup>3</sup>*See, e.g.*, W. Stallings, *Data and Computer Communications* (10th ed. 2014) (Chapter 10.1 - “Principles of Cellular Networks”) at 303-16.