

**IN THE UNITED STATES DISTRICT COURT  
FOR THE WESTERN DISTRICT OF TEXAS  
WACO DIVISION**

<b>INNOMEMORY, LLC</b>	)	
<b>Plaintiff,</b>	)	
	)	<b>Civil Action No. 6:22-cv-00672-ADA</b>
<b>v.</b>	)	
	)	
<b>CULLEN/FROST BANKERS, INC.,</b>	)	<b>JURY TRIAL DEMANDED</b>
<b>Defendant.</b>	)	

**PLAINTIFF’S SECOND AMENDED  
COMPLAINT FOR PATENT INFRINGEMENT**

Innomemory, LLC (“Innomemory” or “Plaintiff”) files this Second Amended Complaint and demand for jury trial seeking relief from patent infringement of U.S. Patent Nos. 6,240,046 (“the ‘046 patent”) and 7,057,960 (“the ‘960 patent”) (referred to as the “Patents-in-Suit”) by Cullen/Frost Bankers, Inc. (“Frost” or “Defendant”). This Second Amended Complaint is authorized by the Court’s Order of September 30, 2022.<sup>1</sup>

**I. THE PARTIES**

1. Plaintiff Innomemory, LLC is a Texas Limited Liability Company with its principal place of business located in Travis County, Texas.

2. On information and belief, Cullen/Frost Bankers, Inc. (“Frost”) is a corporation organized under the laws of the State of Texas with regular and established places of business located throughout this District, including, but not limited to, 2710 La Frontera Blvd, Round Rock, Texas 78681; 605 W. Canyon Ridge Dr., Austin, Texas 78753; and 401 Congress Ave., Austin, Texas 78701. On information and belief, Frost has used infringing devices and sold and offered to sell products and services throughout Texas, including in this Judicial District, and introduced products

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<sup>1</sup> Doc. No. 16 at 6.

and services into the stream of commerce knowing that they would be sold and used in Texas and this Judicial District. Frost has appeared in this matter.

## **II. JURISDICTION AND VENUE**

3. This Court has original subject-matter jurisdiction over the entire action pursuant to 28 U.S.C. §§ 1331 and 1338(a) because Plaintiff's claim arises under an Act of Congress relating to Patent, namely, 35 U.S.C. § 271.

4. This Court has personal jurisdiction over Defendant because: (i) Defendant is present within or has minimum contacts within the State of Texas and this Judicial District; (ii) Defendant has purposefully availed itself of the privileges of conducting business in the State of Texas and in this District; and (iii) Plaintiff's cause of action arises directly from Defendant's business contacts and other activities in the State of Texas and in this District.

5. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and 1400(b). Defendant has committed acts of infringement and has a regular and established place of business in this District. Further, venue is proper because Defendant conducts substantial business in this forum, directly or through intermediaries, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this District.

## **III. INFRINGEMENT**

### **A. Infringement of the '046 Patent (Further Evidence Included as Exhibit E)**

6. On May 29, 2001, U.S. Patent No. 6,240,046 ("the '046 patent", included as an attachment) entitled "INTEGRATED CIRCUIT RANDOM ACCESS MEMORY CAPABLE OF READING EITHER ONE OR MORE THAN ONE DATA WORD IN A SINGLE CLOCK CYCLE," was

duly and legally issued by the U.S. Patent and Trademark Office. Innomemory, LLC owns the '046 patent by assignment.

7. The '046 patent relates to a novel and improved method, system and device for high-performance random access memory circuit.

8. Accused DDR Memory includes, but is not limited to, any memory device that complies with any of the following industry standards: DDR2, DDR3, DDR4, LPDDR3, LPDDR4, LPDDR4X, and LPDDR5. Such industry standards are defined by JEDEC, see [www.jedec.org](http://www.jedec.org) and see standard document references in attached claim charts.

9. The full scope of Defendant's use of DDR Memory is not fully known. However, specific examples of Defendant's use of DDR memory include use of the following Accused Instrumentalities:

Frost used (and currently uses) ATM machines that include Accused DDR Memory.

For example, Frost used and currently uses NCR SelfServ® model 22 ATM machines. For example, Frost branded NCR SelfServ® model 22 ATM machines are located at the following locations:

- Circle K Store at 4310 Gessner Dr. Houston Texas 77041
- Circle K Store 103 Bandera Rd, San Antonio Texas 78228
- Circle K Store 8108 Fredericksburg Rd, San Antonio 78229
- Circle K Store at 3242 Culebra Rd, San Antonio Texas 78228
- Circle K Store at 1419 Culebra Rd, San Antonio Texas 78201.

Each of the NCR SelfServ® model 22 ATM machines includes Accused DDR Memory. See Also Exhibit F at p. 96 ("4 497-0473094 MEMORY MODULE - 2GB, 1333 MHz DDR3 DIMM, UNBUFFERED").

The NCR SelfServ® model 22 series ATM



(image above from <https://tranact.com/pdf/SS-22e.pdf> visited 10/11/22)

Has been very widely deployed by or on behalf of Frost in Texas urban and rural areas, for example at many of the ubiquitous **Circle K Store** locations,



(image of Frost ATM taken at a San Antonio Circle K Store)  
ATM from web reported at



(image of Frost

Circle K Store

4310 Gessner Dr. Houston)

As another example, Frost used and continues to use Diebold ATMs, for example the Diebold Opteva 522 indoor kiosk-format and associated outdoor pedestal-format models



The Diebold Opteva 522 and related ATMs include Accused DDR Memory.

For example, the Diebold Opteva 522 and related ATM products include DDR2, DDR3, or DDR4 memory.

As an example, a Frost branded Diebold ATM machine has been located at the following address:

- 606 Theo Avenue, San Antonio Texas 78225

Frost used and uses computer servers that include Accused DDR Memory.

For example, Frost has used and uses IBM Z13 and Z14 series mainframes.

IBM z13 and z14 mainframes include DDR4 memory.

Thus, during the damages period of the patents in suit, Frost used ATM machines (that include Accused DDR memory) and computer servers that include Accused DDR memory.

Accordingly, Frost has used Accused Instrumentalities during the damages period of the patents in suit.

10. Further support for the allegations of infringement may be found in the attached exemplary claim chart included as Exhibit A that shows a mapping of one or more claims of the '046 Patent-in-Suit and representative industry standards, such as the DDR3 technical specification and Exhibit B that shows a mapping of one or more claims of the '046 Patent-in-

Suit and representative industry standards, such as the DDR4 technical specification. These allegations are preliminary and are therefore subject to change.<sup>2</sup>

11. Accused Instrumentalities include computing devices (including but not limited to, mainframe computers, servers, desktop computers, laptops, tablets, and automated teller machines (“ATM”)) that include the Accused DDR Memory. During the relevant damages period of the Asserted Patents, Frost has used mainframe computers (that include Accused DDR Memory) from IBM. Upon information and belief, during the relevant damages period of the Asserted Patents, Frost has used laptop computers from at least one of the following vendors: Lenovo, HP, Dell, Acer, Asus. Also, while not limited to the following exemplary laptop products, Plaintiff identifies the following laptop products as Accused Computer Devices: Lenovo ThinkPad, ThinkBook, Yoga, Legion, Ideapad and Lenovo series, Dell Vostro, HP ProLiant, Acer Aspire 5750g, ASUS ZenBook, VivoBook, Gaming, ExpertBook, StudioBook, Q and Rog series. Upon information and belief, Frost used, during the damages period, at least some of the above identified Laptop products.<sup>3</sup> During the relevant damages period of the Asserted Patents, Frost has used ATM machines that included Accused DDR Memory. The NCR and Diebold ATM machines referenced above are examples.

12. Exemplary Vendors of Accused Computing Devices include, but are not limited to, Rubric Inc.<sup>4</sup>, HP, Lenovo, Acer, IBM<sup>5</sup>, Asus, Dell, NCR, and Diebold. For example, during the relevant damages period of the Asserted Patents, Frost has used IBM Z13 and Z14 mainframe

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<sup>2</sup> Plaintiff reserves the right to amend, including but not limited to adding claims for indirect and willful infringement, if the discovery reveals pre-suit knowledge during the period of the alleged infringement.

<sup>3</sup> Evidence of Laptop use by Frost can be found at <https://www.bizjournals.com/sanantonio/stories/2001/06/25/focus3.html>.

<sup>4</sup>The Rubrik data management system used by Frost Bank includes Accused DDR Memory. *See* <https://www.purestorage.com/resources/webinars/how-frost-bank-reimagined-backup-with-rubrik-pure-storage.html> and <https://www.ithardwareplus.com/partners/rubrik/>.

<sup>5</sup> *See* <https://ibmmainframes.com/references/a41.html>.

computers (that include Accused DDR Memory). Upon information and belief, during the relevant damages period of the Asserted Patents, Frost has used laptop computers from at least one of the following vendors: Lenovo, HP, Dell, Acer, Asus. During the relevant damages period of the Asserted Patents, Frost has used ATM machines from NCR and Diebold (as specified and illustrated above) that included Accused DDR Memory.

13. Upon information and belief, Defendant has owned and operated products and services involving use of Accused Computing Devices. Thus, Defendant has used Accused Computing Devices. Based on such use, Defendant has infringed one or more method claims of the '046 patent, literally or under the doctrine of equivalents. Defendant's acts complained of herein have benefited Defendant and has caused harm to Plaintiff.

14. Defendant has caused Plaintiff damage by direct infringement of one or more method claims of the '046 patent.<sup>6</sup>

**B. Infringement of the '960 Patent (Included as Exhibit F)**

15. On June 6, 2006, U.S. Patent No. 7,057,960 ("the '960 patent", included as an attachment) entitled "METHOD AND ARCHITECTURE FOR REDUCING THE POWER CONSUMPTION FOR MEMORY DEVICES IN REFRESH OPERATIONS," was duly and legally issued by the U.S. Patent and Trademark Office. Innomemory, LLC owns the '960 patent by assignment.

16. The '960 patent relates to a novel and improved method, system and apparatus for reducing power consumption during background operations in a memory array.

17. Accused DDR Memory includes, but is not limited to, any memory device that complies with any of the following industry standards: DDR2, DDR3, DDR4, LPDDR3, LPDDR4,

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<sup>6</sup> Plaintiff reserves the right to amend, including but not limited to adding claims for indirect and willful infringement, if the discovery reveals pre-suit knowledge during the period of the alleged infringement.

LPDDR4X, and LPDDR5.

18. The full scope of Defendant's use of DDR Memory is not fully known. However, specific examples of Defendant's use of DDR memory include the following Accused Instrumentalities:

Frost used ATM machines that include Accused DDR Memory.

For example, Frost used NCR SelfServ® model 22 ATM machines. For example, there are Frost branded NCR SelfServ® model 22 ATM machines located at the following locations:

- Circle K Store at 4310 Gessner Dr. Houston Texas 77041
- Circle K Store 103 Bandera Rd, San Antonio Texas 78228
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- Circle K Store at 1419 Culebra Rd, San Antonio Texas 78201.

Each of the NCR SelfServ® model 22 ATM machines includes Accused DDR Memory.

The NCR SelfServ® model 22 series ATM



*(image above from <https://tranact.com/pdf/SS-22e.pdf> visited 10/11/22)*

Has been widely deployed in Texas urban and rural areas by or on behalf of Frost, for example at many of the ubiquitous **Circle K Store** locations,





*(image of Frost ATM taken at a San Antonio Circle K Store  
ATM from web reported at*



*(image of Frost*

*Circle K Store*

*4310 Gessner Dr. Houston)*

As another example, Frost used Diebold ATMs, for example the Diebold Opteva 522 indoor kiosk-format and associated outdoor pedestal-format models



The Diebold Opteva 522 and related ATMs include Accused DDR Memory.

For example, the Diebold Opteva 522 and related ATM products include DDR2, DDR3, or DDR4 memory. See Also Exhibit F at p. 96 (“4 497-0473094 MEMORY MODULE - 2GB, 1333 MHz DDR3 DIMM, UNBUFFERED”).

As an example, a Frost branded Diebold ATM machine has been located at the following address:

- 606 Theo Avenue, San Antonio Texas 78225

Frost used and uses computer servers that include Accused DDR Memory.

For example, Frost has used and uses IBM Z13 and Z14 series mainframes.

IBM z13 and z14 mainframes include DDR4 memory.

Thus, during the damages period of the patents in suit, Frost used ATM machines (that include Accused DDR memory) and computer servers that include Accused DDR memory.

Accordingly, Frost has used infringing devices during the damages period.

19. Further support for the allegations of infringement may be found in the attached exemplary claim charts included as Exhibits C and D that show a mapping of one or more claims of the '960 Patent-in-Suit and representative industry standards, such as the DDR3 and DDR4 technical specifications. These allegations are preliminary and are therefore subject to change.<sup>7</sup>

20. Accused Computing Device includes any computing device (including but not limited to, mainframe computers, servers, desktop computers, laptops, tablets, and automated teller machines) that include the Accused DDR Memory. During the relevant damages period of the Asserted Patents, Frost has used Z13 and Z14 mainframe computers (that include Accused DDR Memory) from IBM. Upon information and belief, during the relevant damages period of the Asserted Patents, Frost has used laptop computers from at least one of the following vendors: Lenovo, HP, Dell, Acer, Asus. Also, while not limited to the following exemplary laptop products, Plaintiff identifies the following laptop products as Accused Computer Devices: Lenovo ThinkPad, ThinkBook, Yoga, Legion, Ideapad and Lenovo series, Dell Vostro, HP ProLiant, Acer Aspire 5750g, ASUS ZenBook, VivoBook, Gaming, ExpertBook, StudioBook, Q and Rog series. Upon information and belief, Frost used, during the damages period, at least

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<sup>7</sup> Plaintiff reserves the right to amend, including but not limited to adding claims for indirect and willful infringement, if the discovery reveals pre-suit knowledge during the period of the alleged infringement.

some of the above identified Laptop products.<sup>8</sup> During the relevant damages period of the Asserted Patents, Frost has used ATM machines (see NCR and Diebold evidence above) that included Accused DDR Memory.

21. Exemplary Vendors of Accused Computing Devices include, but are not limited to, Rubric Inc.,<sup>9</sup> HP, Lenovo, Acer, IBM,<sup>10</sup> Asus, Dell, NCR, and Diebold. For example, during the relevant damages period of the Asserted Patents, Frost has used mainframe computers (that include Accused DDR Memory) from IBM. Upon information and belief, during the relevant damages period of the Asserted Patents, Frost has used laptop computers from at least one of the following vendors: Lenovo, HP, Dell, Acer, Asus. During the relevant damages period of the Asserted Patents, Frost has used ATM machines that included Accused DDR Memory.

22. Defendant has owned and operated, or otherwise used, products and services involving Accused Computing Devices. Thus, Defendant has used Accused Computing Devices during the damages period. Based on such use, Defendant has infringed one or more method claims of the '960 patent, literally or under the doctrine of equivalents.

23. Upon information and belief, Defendant has provided laptop computers (that include Accused DDR Memory) and/or desktop computers (that include Accused DDR Memory) to its employees and/or contractors.

24. Defendant has used computer servers that include Accused DDR Memory.

25. Defendant has used, during the damages period, automated teller machines (ATMs) that include Accused DDR Memory.

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<sup>8</sup> Evidence of Laptop use by Frost can be found at <https://www.bizjournals.com/sanantonio/stories/2001/06/25/focus3.html>.

<sup>9</sup> The Rubrik data management system used by Frost Bank includes Accused DDR Memory. See <https://www.purestorage.com/resources/webinars/how-frost-bank-reimagined-backup-with-rubrik-pure-storage.html> and <https://www.ithardwareplus.com/partners/rubrik/>.

<sup>10</sup> See <https://ibmmainframes.com/references/a41.html>.

26. Defendant has caused Plaintiff damage by direct infringement of the '960 patent.<sup>11</sup>

**C. JURY DEMAND**

Plaintiff hereby requests a trial by jury on issues so triable by right.

**D. PRAYER FOR RELIEF**

WHEREFORE, Plaintiff prays for relief as follows:

- a. enter judgment that Defendant has infringed the claims of the '046 patent and the '960 patent.
- b. award Plaintiff damages in an amount sufficient to compensate it for Defendant's infringement, in an amount no less than a reasonable royalty, together with pre-judgment and post-judgment interest and costs under 35 U.S.C. § 284;
- c. award Plaintiff an accounting for acts of infringement not presented at trial and an award by the Court of additional damage for any such acts of infringement; and
- d. award Plaintiff such other and further relief as this Court deems just and proper.

Respectfully submitted,

**Ramey LLP**

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***Attorneys for Innomemory, LLC***

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<sup>11</sup> Plaintiff reserves the right to amend, including but not limited to adding claims for indirect and willful infringement, if the discovery reveals pre-suit knowledge during the period of the alleged infringement.

**CERTIFICATE OF SERVICE**

Pursuant to the Federal Rules of Civil Procedure, I hereby certify that all counsel of record who have appeared in this case are being served on this day of October 13, 2022, with a copy of the foregoing via ECF.

/s/ William P. Ramey III  
William P. Ramey, III