IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

RADIAN MEMORY SYSTEMS LLC, *Plaintiff*, v. SAMSUNG ELECTRONICS CO., LTD., AND SAMSUNG ELECTRONICS AMERICA, INC., *Defendants*.	Civil Action No.: 2:24-cv-1073

DECLARATION OF MIKE JADON

My name is Mike Jadon. I submit this declaration based on my personal knowledge and following a reasonable investigation. If called upon as a witness, I could and would competently testify to the truth of each statement herein.

1. I live in Manhattan Beach, California with my family.

2. I am the CEO of Radian Memory Systems LLC ("Radian"), a position I have held at Radian Memory Systems since its founding in 2010. I am also a listed co-inventor on four of the seven patents asserted in this case, including U.S. Patent No. 11,544,183 ("the '183 Patent") and U.S. Patent No. 11,347,656 ("the '656 Patent"). I am submitting this declaration to give my view on why injunctive relief should be granted, given what happened to me and my company.

Personal Background

3. I have been in the storage and memory industry since I was a child. My dad co-founded a memory products company in 1976, where he served as its lead engineer. Starting at nine-years-old, I spent my summers on the manufacturing lines at the company assembling, packing, and shipping memory board products.

4. After graduating college, I returned to my father's company as a full-time employee. I initially helped in any way I could, from assisting with purchasing components to providing technical support for our products. I eventually took over product management for the company

5. Starting in 1998, I began to shift the company's focus towards developing network storage solutions, while retaining its legacy memory board products business. In the following years, I built up the company's engineering team, including hiring Andrey Kuzmin and Robert Lercari. In 2003, my two younger siblings and I purchased the company from my father.

6. During this time, the network storage industry at large saw a large influx of interest from venture capital investors. This investment was largely focused on research and developing solutions to the complex problems of large-scale storage. At the same time, I continually reinvested the company's profits into research and development for network storage products, and we eventually developed an NVRAM product that became very successful for the company. Many newly funded storage startups became customers of the company's NVRAM products, and through these business relationships, I became even more familiar with the problems faced in the network storage industry.

7. Following the success of these products, the company was acquired in 2007. At that time, we had grown to have 25 full-time engineers working on product development.

Radian Memory Systems Created and Marketed Our Innovative Technology.

8. After leaving my previous position after subsequent acquisitions, I remained in close contact with my former colleagues, including Andrey Kuzmin. Andrey and I both recognized that flash memory was beginning to enter the data center as a storage medium and as a replacement for traditional hard drive disks. However, we also recognized that flash memory,

at scale, presented many difficulties to data-center customers. Specifically, we saw that managing flash storage at scale was very inefficient at that time. We believed a more efficient flash management solution could be not only a valuable technological breakthrough, but the foundation for a new company.

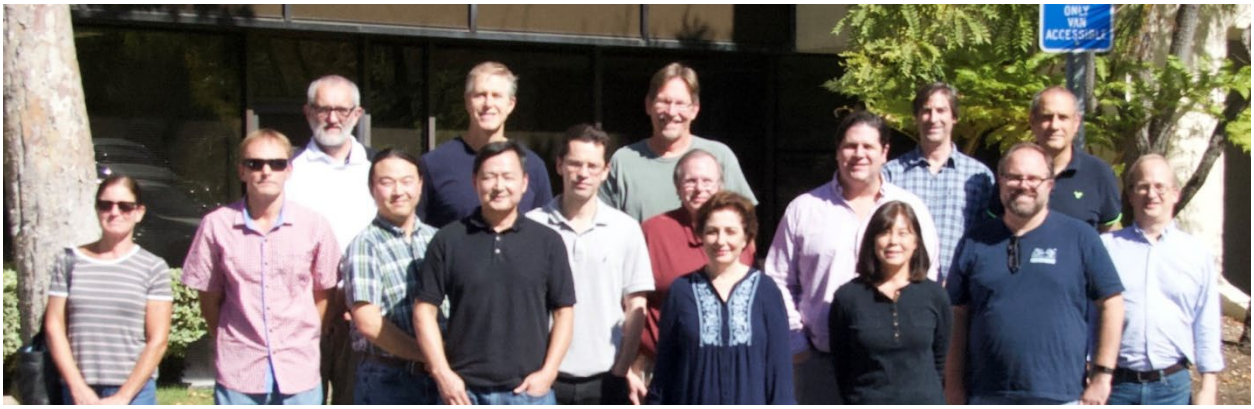
9. With this vision in mind, Radian Memory Systems was founded in 2010. From day one, Radian was focused on building what would become Symphonic Cooperative Flash Management to solve these flash management problems. The development of future Symphonic-based products was the basis of Radian's business strategy. While others in the industry focused on applying flash memory to higher margin server applications, we believed the future market would apply flash memory to larger storage array applications, where the problems we were aiming to solve with Symphonic would have more value, particularly in the context of large data center operations where SSDs with our technology would be more cost effective and have longer useful lives. While we were eventually proven right, my industry colleagues were, at this time, very skeptical of Radian's approach.

10. Additionally, Radian manufactured NVRAM memory products as a source of revenue for the company to support our continued Symphonic research and development efforts. We sold tens of millions of dollars' worth of our NVRAM memory products, including to many major players in the industry.

11. While Radian sought out to tackle large technological problems, Radian itself was a small company. At our largest we had about 17 employees and engaged one full-time consultant. Still, Radian's output matched or outpaced much larger technology teams at major players. Today, Radian has 3 employees.

12. From 2010 to 2015, we worked tirelessly on the research and development of Radian's Symphonic technology and Symphonic-based products. This started by breaking down the long-standing barrier that stood between storage devices and the host system software that used them, and cracking open what was commonly known as the 'black box' of embedded technology found on every Flash SSD. In the data center context, the storage devices could be flash SSDs and the host system software could be the storage management layer of a server or storage controller. While this revolutionary approach opened up endless new possibilities, it created an equal number of new technical challenges that the industry had not faced previously. Our answer was to create a new 'Cooperative' model that led to numerous Radian inventions. Radian's Cooperative Flash Management technology and its associated inventions allowed for a smarter division of labor between the SSD and the host (such as a server or storage controller) that is writing data to and reading data from the SSD. Radian's approach had the host be primarily responsible for things like scheduling of tasks and commands and data placement while it had the SSD's flash memory controller be primarily responsible for things like monitoring and handling maintenance of the NAND flash. This made SSDs much more efficient, reliable, and better performing. And through the difficult work of building real-world implementations of our products, we continued to innovate. And as part of our company strategy, we filed applications for patents to protect these valuable inventions.

13. Despite contributing over a million dollars of my own money and raising an additional million dollars of capital from angel investors, money was tight. We sought to reinvest revenues generated from the sale of NVRAM products into the development of our Symphonic technology. At times, our employees had to work on heavily reduced salaries, while I did not take any salary for many years. Below is a picture of some of the people on our team:



14. Meanwhile, Radian continued to invest money on patent prosecution. Regardless of any financial challenges we may have had at this time, we never sacrificed in prosecuting patents covering our innovations. We firmly believed the time and money spent on filing detailed applications was equally important to Radian's future success because patent protection was the only way for us to protect our investments and innovations. We filed our first patent application in January 2013.

15. Later in 2013, Radian had begun engaging with potential customers and partners to discuss the performance and efficiencies associated with the Symphonic technology, which by 2014 could now be verified in the industry's first actual product implementation. Through these engagements, Radian's Symphonic technology was already gaining positive recognition. For example, Radian held multiple meetings with representatives from a leading NAND flash and SSD manufacturer over the course of several months, with one representative stating that Radian and the Cooperative Symphonic technology had solved the main problems of flash solid-state drives ("SSDs") and that Raidan was three years ahead of the rest of the industry in doing so. The reality was that we were solving problems with flash that people in industry had not yet even realized were problems. All the while, we continued to file more patent applications on our innovations.

16. By 2015, we had developed working system-level implementations of Radian's Symphonic Cooperative Flash Management technology. That year, we planned to announce publicly the company and present its Symphonic technology at the 2015 Flash Memory Summit, the industry's largest flash storage conference with thousands of attendees.

17. At the 2015 Flash Memory Summit, Radian was awarded Most Innovative Technology—an award typically won by multi-billion-dollar companies—for the first version of our Symphonic technology. Winning this top award validated all of our hard work developing Symphonic over the prior five years. Although we were a small start-up company, Radian was a pioneering leader in the software-defined flash market for data centers. We easily bested other technologies with our superior Symphonic Cooperative Flash Management technology, which solved the challenges for software-defined flash for data centers. That technology embodied our patented inventions.

18. The Radian patents that are asserted in this case reflect some of those patented inventions. Below is a table listing the asserted patents:

Patent	Title	Inventors	Issue Date
U.S. 11,544,183	Nonvolatile memory controller host-issued address delimited erasure and memory controller remapping of host-address space for bad blocks	Kuzmin, Andrey V.; Jadon, Mike; Mathews, Richard M.	2023-01-03
U.S. 11,709,772	Storage system with multiplane segments and cooperative flash management	Kuzmin, Andrey V.; Wayda, James G.	2023-07-25
U.S. 11,681,614	Storage device with subdivisions, subdivision query, and write operations	Kuzmin, Andrey V.; Wayda, James G.	2023-06-20
U.S. 11,740,801	Cooperative flash management of storage device subdivisions	Kuzmin, Andrey V.; Chen, Alan;	2023-08-29

		Lercari, Robert	
U.S. 11,347,657	Addressing techniques for write and erase operations in a non-volatile storage device	Lercari, Robert; Chen, Alan; Jadon, Mike; Robertson, Craig; Kuzmin, Andrey V.	2022-05-31
U.S. 11,347,656	Storage drive with geometry emulation based on division addressing and decoupled bad block management	Lercari, Robert; Chen, Alan; Jadon, Mike; Robertson, Craig; Kuzmin, Andrey V.	2022-05-31
U.S. 11,307,995	Storage device with geometry emulation based on division programming and decoupled NAND maintenance	Lercari, Robert; Chen, Alan; Jadon, Mike; Robertson, Craig; Kuzmin, Andrey V.	2022-04-19

Radian Continued to Receive Conference and Industry Recognition.

19. We continued marketing, promoting, and developing our technology after winning the Most Innovative Technology Award in 2015 by attending conferences, by renting booths to engage with people in industry, and by taking many technical engagement meetings with leading SSD providers (such as Samsung) and potential customers, such as Microsoft, Google, Dell/EMC, HP, NetApp, and Facebook/Meta. Below are some pictures of the Radian team in conferences:

Radian
MEMORY SYSTEMS
Symphonic
Solving Software-Defined Flash for the Data Center
Radian
MEMORY SYSTEMS

20. Samsung, with its later infringement, had an easier time selling to these high-volume SSD users because we had already done the heavy lifting of proving that our technology overcomes well-understood challenges with software-defined flash in data centers, as well as

challenges the industry had yet to appreciate. We had essentially opened the doors to this market opportunity years before Samsung or anyone else started selling SSDs with Cooperative Flash Management capabilities.

21. Eventually, Microsoft made a public call-to-arms in 2017 at an industry conference to encourage the industry to adopt a version of the technology and architecture that we had been evangelizing for several years. By that time, Radian had already won Most Innovative Technology Award in 2015, as discussed above, as well as recognition from leading industry analysts, such as the *EE Times*,[1] *The Register*,[2] and *Tom's IT Pro*.[3] Microsoft's call-to-arms led to Project Denali in 2018, which was led by Microsoft, Samsung and others, to continue to promote and develop the technology and architecture that Radian had been evangelizing. Project Denali, in turn, led to the establishment of Technical Working Groups within the NVM Express ("NVMe") consortium. NVMe is a consortium of companies that work together to set standards for how host systems communicate or interact with non-volatile memory in SSDs. NVMe set about standardizing command sets that used Cooperative Flash Management, such as Zoned Namespaces (ZNS) or Flexible Data Placement (FDP).

22. Even after the industry recognized our first innovations, we continued developing our technology. This included improving product capabilities, expanding use cases, and simplifying user integrations. In 2015 and over the next several years, we were active in industry conferences evangelizing Cooperative Flash Management through technical presentations and hosting exhibit booths at trade shows. To facilitate increased adoption of Radian's proprietary

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[1] https://www.eetimes.com/15-views-from-the-flash-summit/?_ga

[2] https://www.theregister.com/2015/08/04/radian_replacing_flash_translation_layer/

[3] https://web.archive.org/web/20150809025104/http://www.tomsitpro.com:80/articles/radian-ssd-ftl-symphonic-nand,1-2787.html

technology that uniquely solved the issues with software-defined flash, we built out host system software to prove that the technology could be functional in real systems. To answer our greatest skeptics, we ran this system software with our technology under industry standard benchmark tests, that had originally been designed to work with conventional SSDs, to empirically prove that it delivered ground breaking performance. These results were further validated in separate successful product integrations and evaluations by a prospective OEM customer and IBM Research. The NVMe organization's eventual publication of the ZNS command set specification in 2020 was also after Radian had won another Most Innovative Technology award—for a new version of our cooperative flash management firmware—at another industry summit the year before, in 2019.

Radian Faced Industry Exile for Not Agreeing to Give Samsung (and Others) a Royalty-Free License to Its Patents.

23. The NVMe consortium required, as a condition for joining, that companies surrender their IP rights by pledging to give royalty-free licenses to the other members for any of our technology that might be incorporated into the standard. We were concerned that, if we joined the NVMe consortium that it would incorporate our technology into the standard, and that as a result, we would then bind ourselves to royalty-free licenses to the rest of the industry. We instead wanted to retain our rights to our technology. Certain individuals even tried to pressure us into joining an NVMe technical working group by threatening us, saying (among other things) that customers in the working group could be prohibited from working with us if we did not join and that NVMe may change its policy to limit drafts of new specifications to members of the working groups. In the face of these threats, we stood our ground. Eventually, the threats became a reality. We were ostracized in industry. We were denied access to working drafts that would have previously been made available to us. And instead of the number of customer

engagements skyrocketing as would be expected given that we were the only company that had a fully functional zoned Flash product shipping for evaluations, they dropped off a cliff shortly after it became clear that we were not willing to join the NVMe consortium. And once the new specifications became published, it was clear that NVMe incorporated our Cooperative Flash Management into its specifications, starting with the ZNS specification, and later into other specifications, such as the FDP specification. This assertion is further supported by Radian becoming the first company in the industry to have its SSD successfully pass a complete suite of compliance diagnostics, conducted by an independent test verification company, for NVMe's new ZNS specification just two months after it was released. To our knowledge another company's SSD did not pass these ZNS compliance tests until over a year later despite other large NVMe supplier members having had access to the specification throughout its development in 2019 and 2020.

24. Samsung is not only a top-tier "promoter" member of the NVMe consortium that published various command set specifications, but it is also a key contributor to the ZNS specification with several of its employees serving on the ZNS technical working group as well as having several employees listed as authors of the specification. Samsung representatives frequently attended Radian's industry conference booths and inquired about Radian's technology. Samsung also had key contributors and authors on other specifications such as FDP. Further, Samsung is a heavily invested and influential participant in conventional SSD markets and markets for software-defined flash SSDs, including ZNS-capable SSD markets. Samsung has the largest market share in SSDs in the United States for conventional SSDs. Based on my understanding of the industry, I believe, and it also stands to reason, that Samsung also has the

largest share of software-defined flash SSDs, including ZNS-capable SSDs specifically, and also the largest share of enterprise and data-center SSDs.

25. Samsung itself did not announce its intention to release a ZNS-compatible product until 2021. With its size, Samsung had massive manufacturing and assembly capabilities at its fingertips with which it could infringe Radian's patents. Samsung's size gave it an enormous advantage not just in terms of its market share, but also in terms of manufacturing capacity, economies of scale, capital to support service and warranty, and in terms of human and capital resources generally. Innovation was Radian's only competitive edge. Radian introduced Cooperative Flash Management to Samsung at least as far back as 2015. Initially, Samsung was not receptive to Radian's technology. But we forged ahead without Samsung. On our own, we created a huge opportunity not just with our inventions, but also by convincing large-scale potential customers over a period of many years that Cooperative Flash Management was the superior technology for data center SSDs by completing successful customer evaluations, system integrations and industry-standard performance benchmarking. Samsung only entered the market after we had created this opportunity and removed virtually all risk in the endeavor, and they took it for themselves. By infringing Radian's patents, Samsung stripped us of that competitive edge and made it to where we could only compete on scale—a playing field where Samsung has a colossal advantage. Competing with Samsung on scale is simply unrealistic for Radian.

Samsung's Infringement Is Ongoing.

26. For many reasons, I believe that Samsung's infringement will continue unless it is enjoined.

27. Samsung has publicly announced its ZNS products. Also, as a supplier of SSDs (including ZNS-capable SSDs) to hyperscalers with massive data center operations, Samsung has

obligated itself to fulfill purchase orders and perform on contracts for ongoing service and maintenance obligations. Samsung's market share, its market investments, its standards-setting activity, and its supply chain role and obligations make Samsung's continued infringement of Radian's patents very likely.

28. Above, I mentioned that Microsoft had called on the industry to adopt Cooperative Flash Management technology and architecture that Radian had been evangelizing and that this eventually worked its way into NVMe standards such as the ZNS specification as well as the FDP specification. In particular, Microsoft urged the industry to work on adopting a new generation storage interface for cloud-scale datacenter applications. This is, in part, because Microsoft runs the Azure cloud platform, which is incredibly large in scale with support for hundreds of services. The Azure platform runs on large datacenters, which would collectively require millions of SSDs. As an operator of all of these datacenters with this scale of SSDs being used, Microsoft wanted better-performing and more cost-effective SSDs to be made by SSD manufacturers. Microsoft also benefits from multiple SSD manufacturers and had expressly called for multi-vendor support in its 2017 announcement. Microsoft has also stated at industry conferences and published articles and blog posts stating that it uses ZNS.

29. Prior to Microsoft, a high-volume SSD consumer, demonstrated its demand for SSDs with architecture and technology that embodied Radian's patent inventions (by urging SSD manufacturers like Samsung to make them), Samsung was publicly supporting alternative SSD technologies, including with papers and conference presentations. Subsequent to Microsoft's call-to-arms, Samsung has publicly announced its offerings of ZNS-capable SSDs for large datacenter and enterprise operations. Of the SSD manufacturers that have not only promoted ZNS but have announced or marketed ZNS-capable products, Samsung likely has the highest

market share by a significant margin. Samsung also has the production and manufacturing scale to meet Microsoft's requirements and needs as well as those of other hyperscalers operating datacenters.

30. It is my belief and understanding that Microsoft buys ZNS-capable SSDs from Samsung because Microsoft wanted the benefits that Radian's patented inventions provide to Microsoft as a datacenter operator.

Samsung's Infringement Has Harmed Radian in Devastating Ways.

31. Samsung's infringement has harmed Radian in devastating ways.

32. As discussed above, Samsung took for itself the market opportunity created entirely by Radian's research and development, Radian's inventions, and Radian's efforts to evangelize its technology.

33. With Samsung's ongoing infringement of Radian's patents, we will also continue to lose pathways to market opportunities in addition to the market opportunities that we have lost, including those with then-existing customers and then-prospective customers as explained in more detail below. Additionally, Samsung's infringement caused us to suffer damage to our position as the market pioneer for our inventive Cooperative Flash Management technology in the data center SSD market, including for ZNS-compatible SSDs. And Samsung's ongoing infringement will further erode what is left of market position as a technology pioneer.

34. As discussed above, Samsung's infringement overwhelmed our company. Samsung's infringement was fortified by its market share, its manufacturing capacity, its economies of scale, its capital to support service and warranty, and its human and capital resources.

35. Innovation was our competitive edge, and we could not realistically compete against Samsung when it stripped us of that edge by infringing our patents.

36. Samsung's infringement has also harmed us by encouraging others to infringe.

37. As Samsung is an influential market participant, its infringement encouraged other companies to release SSDs with Cooperative Flash Management capabilities, such as those with ZNS-compatible interfaces, that resulted in Radian facing the prospect of competing against its own technology with other marker entrants. This harm to our business was amplified by Samsung's combined efforts with other members of the NVMe organization to incorporate Radian's patented technology into standards specifications. In this way, Samsung's infringement made it to where the entire market treated our patented technology as free game to be used and commoditized at will. This further eroded our position as a market pioneer for this technology. In short, Samsung's infringement is destroying the business opportunity that we created.

38. Samsung's infringement is also destroying our patents' limited term. Our patent grants give us a limited term of the right to exclude others. Samsung's infringement is making it to where we do not have that right so long as they continue to infringe unenjoined, and only an injunction can restore it. But since our patents' terms are not extended or paused during litigation, Samsung's infringement is permanently destroying our limited term. As I explain in more detail below, if Samsung's infringement, and then others, stopped or were made to stop, we would have a chance to take advantage of our patent-protected market exclusivity to continue to innovate.

39. Samsung's infringement has also harmed Radian's reputation.

40. Over the course of a decade, Radian diligently built a great reputation. We were recognized as a pioneer in our technology space. For example, in 2020 before the official publication of the ZNS specification, one of the largest storage software companies in the industry told us that we appeared to be the frontrunners in the space.

41. We steadily built this reputation over the course of years by teaching the industry, including Samsung, about our patented inventions and novel approaches. We did this by presenting at industry conferences as well as having numerous direct, bilateral engagements with major players in industry.

42. We were dedicated. We were not simply presenting our innovations on paper. We showed that our technology had superior performance by making real products and running our products under industry-standard device-level and system-level benchmark testing. This was a huge undertaking, but it added to our company's stature.

43. Our well-regarded reputation was also reflected in the industry awards and the publicity we received in relevant industry publications.

44. Without a doubt, Samsung and the other members of the NVMe organization knew of Radian prior to taking our patented inventions and putting them in standards specifications. As noted above, we were pressured to join the NVMe consortium, and if we had joined, then other NVMe members, like Samsung, could have given themselves a royalty-free license to any of Radian's patents by adopting our technology into the standard. When we refused, the NVMe members incorporated our patented technology into the standard regardless.

45. Since Samsung has the largest share in the SSD markets and because it is a key leader in the NVMe consortium, Samsung's infringement was particularly harmful to Radian's reputation. Had Samsung honored Radian's patent rights by coming to us and acknowledging that they need our permission to use our technology or, alternatively, by not helping themselves to it without our authorization, then the rest of the industry (including Samsung's customers and Radian's customers) would have seen a major market participant (i.e., Samsung) respecting Radian's patent rights. This would have sustained our reputation as the pioneer of this

technology. But with Samsung's infringement, our reputation has fallen from being a pioneer to being a company whose technology is free to plunder by anyone and everyone in industry.

46. Samsung's infringement has also harmed Radian's goodwill.

47. Alongside our reputation, Radian spent years fostering goodwill through the relationships we had with various companies.

48. As discussed above, Radian had products other than those that embodied the claims of the asserted patents. Radian sold tens of millions of dollars' worth of these other products. Radian engaged with its largest customer at the time regarding potential opportunities for that existing customer to purchase Radian products that did embody the patented inventions. Radian even entered into an evaluation agreement with this customer, delivering it an actual product for evaluation, detailed technical documentation, and support. Additionally, Radian entered into similar discussions, and in some cases also similar evaluation agreements, with other prospective customers regarding potential opportunities for those prospective customers to utilize Radian products that embodied the patented inventions.

49. But just like its reputation was damaged, Radian's goodwill and relationships with these customers and prospective customers were also damaged. As detailed above, Samsung's infringement was particularly destructive because of its visibility, its market share, and its role in standards activities.

50. Samsung's infringement turned us into a company whose technology was viewed as being free for the taking by anyone and everyone in industry, including by Radian's own customers and prospective customers. This perception continues today. This all destroyed Radian's goodwill and customer relationships. In fact, after Samsung's infringement, our largest customer decided not to consummate an agreement with us to purchase products embodying our

patented inventions, and neither did any of our prospective customers. The ongoing infringement continues to damage Radian's reputation as a pioneer and frontrunner as well as Radian's goodwill with others in this space.

An Award of Accumulated, Unpaid Royalties Does Not Come Close to Addressing the Harm Radian Has Suffered from Samsung's Infringement.

51. If Radian only received an award of accumulated, unpaid royalties—and not the preliminary injunctive relief we are now seeking—this would not come close to addressing the harm that Samsung's infringement has caused Radian.

52. As an initial matter, Samsung's infringement is not a one-time or incidental violation of our patent rights. Rather, Samsung's infringement is ongoing. It is a constantly recurring grievance. Just as local governments operate to stop ongoing trespass of real property, I expect my federal government to stop Samsung's ongoing violation of my patent rights. In fact, it is more appropriate for the federal government to stop ongoing patent infringement because unlike real property, we cannot resort to self-help (e.g., like building a fence around the real property) and put an end to Samsung's infringement ourselves.

53. Also, denying injunctive relief strips me of my veto power in negotiating with Samsung. If Samsung wanted to use our technology, they should have honored Radian's patent rights by coming to us and acknowledging that they need our permission to use it. If they had done so, we could have evaluated Samsung's offer, and we could choose to reject it. In that scenario, if Samsung were still honoring our patent rights, then they could either buy Radian's products or continue with their own business without our technology. And we would have veto power over who gets to use our technology and under what terms. Even with Samsung's past infringement, an injunction would put us back in this position. But if Samsung is not enjoined, then they are effectively given a court-ordered right to continue infringement. They would never

need to seek our permission to continue using our technology, and even if they deigned to engage in negotiations with us, it would be with an assumption that they are entitled to continue infringing. Absent injunctive relief, Samsung would be the one with veto power over our technology. We would have to accept Samsung's terms because, if we rejected Samsung's terms, they would simply end the discussions and return to their unbridled infringement. Afterwards, we would each continue bearing the time and cost of litigation—a burden that is insignificant to Samsung, with its vast resources. As more time passed in litigation, Samsung would continue reaping the benefits of our technology. Its position and strength would grow. Eventually, the limited term of Radian's patents would expire, leaving Radian with nothing more than the hope that, one day, Samsung might be forced to pay the unpaid royalties that had accumulated. This is not adequate relief.

54. As I noted above, if others in industry saw that our patents were enforced in court, they would be much more likely to honor our patent rights. There would be tremendous value in that. The possibility that we might, one day, be awarded accumulated unpaid royalties does nothing to compensate us for this loss of value.

55. There are also practical limitations to collecting accumulated, unpaid royalties. Absent injunctive relief, Radian would have to sue Samsung again and again, as its infringement would likely continue beyond the initial award of accumulated, unpaid royalties absent. And it is unlikely that we could ever litigate the full scope of Samsung's infringement since, as I understand it, courts frequently limit the number of patents and the number of claims that can be asserted in a single case at trial. Even without these limitations, it would be unrealistic and unfair for juries to have to resolve questions of infringement and validity for each individual patent in a large portfolio, such as ours. Finally, the lack of industry-specific experience of juries

and of judges, too, is also a concern. As an order of magnitude, the opportunity we created with our research and development, our inventions, and our efforts to evangelize our technology is worth tens of billions of dollars per year. Respectfully, I am concerned that a jury or a judge would hesitate to award anything that comes close to the massive value we created because they likely would be unfamiliar with the size of the industry, the scale of the technological problems we solved, the scale of the benefits to the industry from our technology, and also because they are possibly unaccustomed to dealing with such large numbers. An injunction would address these problems because it would force Samsung to negotiate with us directly if it wanted to continue using our technology. I believe that the outcome of an out-of-court, injunction-backed private negotiation is much preferable to having attempts at in-court estimates about the amount of unpaid royalties we should be awarded.

56. If the only consequence that Samsung faces is the possibility that it might have to pay unpaid accumulated royalties at some point in the future, that gives Samsung every incentive to entangle us in perpetual litigation.

57. If Radian's patent rights were honored, Radian could decline to enter into undesirable transactions with other market participants if Radian was not satisfied with the terms. For example, Radian had focused its business model on a per-unit basis and on including an IP license royalty component. A later royalty award that deviates from the deals that Radian would have accepted denies Radian the right and ability to decide to whom it wants to license its patents and on what terms.

58. Additionally, Radian had a robust virtuous cycle—reinvesting our revenue dollars back into research, design, and development to tackle challenging, technological problems. Infringement of our patented technology prevented us from having the opportunity to continue

more rounds of this virtuous cycle. And as a result, we have been forced to recapitalize and restructure in preparation for protracted litigation, and we have been diligently investigating Samsung's infringement and preparing to and pursuing enforcement in federal court. If Samsung, and then others in the market, stopped or were made to stop their infringement, we would have the ability to develop more innovations (whether by way of prototyping or partnering to consult on advanced storage solutions for data center operations). We still have the technical expertise, the business acumen, and the industry knowledge to do so. But if we are to try and create new innovations, we need to know that the courts will enforce our patent rights. It simply makes no sense for us to invest time, money, and effort in trying to develop new innovations if large companies like Samsung are allowed to take our opportunities and our innovations for themselves. If the courts will not enforce our patent rights with injunctive relief, we simply would not have an appetite to develop more innovations—with all of the effort, resources, and risks that entailed—only to have them taken by big technology companies, and be left fighting yet another lawsuit.

Conclusion

59. Even if injunctive relief is rarely given, it should be given in this case. We did everything we could think of to do things the right way. We protected our inventions with patents. We resisted immense pressure from industry to give away our patent rights for free. Also, our inventions were not simply innovations on paper. We showed that our technology had superior performance by making real products and running our products under industry-standard device-level and system-level benchmark testing. And on our own, we created a huge opportunity not just with our inventions, but also by convincing large-scale potential customers that Cooperative Flash Management was the superior technology for data center SSDs by completing successful customer evaluations, system integrations, and industry-standard

performance benchmarking. Samsung only entered the market after we had created this opportunity and after we removed virtually all risk in the opportunity. Injunctive relief is fully appropriate in this case, and I respectfully ask that it be granted.

I declare under penalty of perjury under the laws of the United States of America and the State of California that the foregoing is true and correct.

Executed on: April 18, 2025

Mike Jadon