Statement of

Jonathan Rogers
Chief Operating Officer
Centripetal Networks, Inc.

Before the
Subcommittee on Courts, Intellectual Property, and the Internet
Committee on the Judiciary
United States House of Representatives

Hearing on
The Patent Trial and Appeal Board After 10 Years:
Impact on Innovation and Small Business

June 23, 2022
Chairman Johnson, Ranking Member Issa, and members of the Subcommittee, it is an honor to testify before you today to share the real-world struggles that small innovative companies face today in protecting their inventions against large predatory serial infringers. Under the current state of the law, the cards are stacked against innovators and in favor of infringers who are often large companies with endless resources. As the Chief Operating Officer and one of the early founders of Centripetal Networks, I have seen first-hand how years of hard work and millions of dollars of investment can be stolen in a matter of weeks by large multi-national technology companies. I am here today as just one voice out of many American innovators. Our company has survived to tell our story, but from what I have been through I can’t imagine how most could endure the onslaught of what it takes to build a business today on the promise of intellectual property.

To give you some background on Centripetal, my father, Steven Rogers, founded the company in his basement in Vienna, Virginia in 2009. I, along with a few others, joined him in the pursuit of an entirely new way of solving the failures in traditional network security. Each of us had spent our entire careers in communications security. We recognized that the design of the internet was wrong. It was entirely trusting. Assuming trust instead of proving it was a foundational mistake. Since the launch of the commercial Internet in the mid-1990s, network security has focused on the flawed strategy of openly trusting while “sniffing” for viruses. This strategy is incomplete and has famously failed time and again. Our adversaries – including rogue states and criminal enterprises – can easily hide new viruses and evade detection, so identifying the viruses or the “what” entering into a network was very ineffective as a primary strategy. Our innovations represented a true paradigm shift because instead of focusing first on the “what,” we started with the “who.” With a deep evaluation of the “who” we could establish trust right upfront and separate risk from mission so that dangerous communications never occur in the first place. Others thought this would be impossible to do fast enough, that it wouldn’t scale, and even if implemented would be impractical to manage. We ignored them.

Each of our innovations came from our own research and development. Our focus for the past 12 years has continually been on unlocking the vast amount of potential in the cyber threat intelligence available from thousands of sources all across the globe. We knew that it could be used predictively to identify bad actors and the tactics they use for network breaches. If harnessed in an operational system, the power of this combined knowledge could secure networks and drastically reduce costs. After years of effort we solved the problem of scale dramatically, but found we still had to go much further with technologies that manage the dynamics of the intelligence, its fidelity, the problem of correlating threats across segments, and the problem of doing all of this while encrypted among many, many others. Today, with each of these achievements Centripetal uses billions of elements of cyber intelligence to create rules in real time which prevent and block malicious data from entering a private network. Centripetal revolutionized the concept of a threat intelligence gateway – a device that operates at machine to machine speed to prevent unwanted traffic before it ever enters a customer’s network.

This type of security approach – predictively identifying bad actors instead of bad acts – came naturally to our team. Many of us came from the intelligence community where the continuous “intelligence cycle” is used extensively. Many of Centripetal’s Officers and Directors have dedicated their careers to protecting our national security. My father served in the Air Force Security Services (a part of the National Security Agency) whose mission is to help gather
intelligence and to protect U.S. communications assets against threat and exploitation. When the Air Force had to certify the communications security of the National Military Command Center in the Pentagon Steven and his team were sent. He and the team he led had the same responsibility for Air Force One, U.S. Satellite systems, and the radios used in most Air Force platforms. Prior to joining Centripetal, I was an officer in the Navy in a community called Cryptology and Information Warfare, the Navy’s security group to protect naval military communications and exploit adversary communications. I was assigned from there as a military officer stationed at the NSA where I spent a number of years working in the National Security Operations Center which is the nations SOC. Afterward, I joined the CIA and was sworn in as a staff officer in the Directorate of Science & Technology where I was a technical intelligence officer. My responsibilities were to run several large development programs where we built and supported some of the most advanced secure communication systems in the country. Our Board of Directors have included the former Chief Technology Officer of the CIA and the former Chief Technology Officer of the Defense Intelligence Agency. The head of our advisory board is Dr. Paul Kaminski, who is the former Chairman of the Defense Science Board and who ran the program to deliver stealth technology to the United States.

Today, we have nearly 100 employees located in offices in Reston, Virginia, and Portsmouth, New Hampshire, nearly all of whom are world-class cyber security experts and engineers. We protect over one hundred large private and public computer networks representing millions of end users. Each day we deploy over 2 billion units of intelligence which is processed against a combined 20 Peta-Bytes of customer network traffic. We seamlessly manage over 100 million daily intelligence updates in real time. We shield over 300 million threat events which are entirely offloaded from our customers. Our customers come from every segment and include major U.S. hospital systems, banks, insurance firms, power plants, retailers, U.S. federal government agencies, foreign governments, defense contractors, and critical infrastructure providers with services that are used by most Americans on a daily basis.

To date, we have invested nearly $200 million in research and development of cybersecurity solutions, and the United States Patent and Trademark Office (USPTO) has recognized Centripetal’s innovations by awarding Centripetal approximately 50 patents for our key technological advances in the network security industry. We have been awarded innovation contracts by the Department of Homeland Security and the Central Intelligence Agency.

A Real-World Example of Predatory Infringement

Since its founding, Centripetal has made efforts to partner with larger companies but has learned the hard way that it cannot always trust others with confidential information about its technologies. Between 2015 and 2017, Centripetal had numerous meetings with network giant, Cisco Systems, Inc. We discussed Centripetal’s business, novel technology, products and patented technology. Centripetal gave Cisco multiple demonstrations of its products because Cisco had expressed interest in collaborating with Centripetal. After Cisco executed a non-disclosure agreement, Centripetal provided Cisco with confidential information about its patented algorithms. After months of meetings and demonstrations, Cisco claimed it was disinterested, and walked away from those meetings. Then, to Centripetal’s surprise, Cisco launched new versions of its products that incorporated Centripetal’s patented technologies shortly after it terminated its discussions with Centripetal.
Cisco touted its new focus on installing predictive, intelligent security directly on its networking equipment as the “Network of the Future” and claimed that it solved the unsolvable challenges of stopping security threats in their tracks. Below is a portion of a Cisco press release entitled “Cisco unveils network of the future that can learn, adapt and evolve.” This “significant breakthrough” was our technology.¹

Cisco unveils network of the future that can learn, adapt and evolve

SAN FRANCISCO — June 20, 2017 — Today Cisco unveiled intent-based networking solutions that represent one of the most significant breakthroughs in enterprise networking. The introduction is the culmination of Cisco’s vision to create an intuitive system that anticipates actions, stops security threats in their tracks, and continues to evolve and learn. It will help businesses to unlock new opportunities and solve previously unsolvable challenges in an era of increasing connectivity and distributed technology.

Incorporating Centripetal’s patented technology into Cisco’s networking products turned out to be an amazing financial success for Cisco. Cisco profits reached an all-time record based on the sales of products that infringed Centripetal’s patents, and its revenues increased by tens of billions of dollars.

In 2018, Centripetal had no choice but to sue Cisco for patent infringement if it wanted to stay in the market selling its patented innovations and continue innovating. Centripetal asserted several patents against Cisco. Cisco’s response was not to talk to us, but rather to fight tooth and nail. We believe they did so because, as we learned from discovery in the litigation, Cisco did not want us to learn about their decision to study our patent claims, as opposed to partner with us. Ultimately, Cisco chose to launch Centripetal’s patented technology as if it was something that Cisco developed.

Cisco’s first move was to file over a dozen *inter partes* review (IPR) petitions before the Patent Trial and Appeal Board (PTAB). These petitions challenged the validity of Centripetal’s patents. When the PTAB receives such a petition, a panel of three administrative judges decide whether to institute or decline to institute the IPR proceeding. Cisco had some success with the IPR attacks on Centripetal’s patents, but the majority of Centripetal’s patent claims withstood Cisco’s attacks.

Cisco used the IPRs as a basis to stay district court litigation. That meant Centripetal was forced to wait in the wings, while trying to compete in the market against our own patented technology that Cisco’s massive global sales force was aggressively marketing. This stay was in place for

---

seven months – stalling an infringement case on patents that were so strong that PTAB did not even institute a proceeding.

Once the stay of the litigation was lifted, Centripetal pursued Cisco for infringement of five fundamental cyber security patents. Our trial was scheduled for April 2020, which followed the declaration of the COVID 19 pandemic. As a result, Senior District Court Judge Henry Coke Morgan, Jr. offered a bench trial. The parties agreed, and the first patent trial via Zoom moved forward during the pandemic.

Between the months of May through June of 2020, Judge Morgan held a trial that spanned eight weeks in which he heard testimony from a dozen experts and numerous employees of both parties, and reviewed hundreds of trial exhibits. In October of 2020, he issued a judgment finding that Cisco had willfully infringed four of the five asserted Centripetal patents. Specifically, he found: “The fact that Cisco released products with Centripetal’s functionality within a year of these meetings goes beyond mere coincidence.” The Court found that “the rulings on the four patents that were found infringed and valid were clear and not a close call…. Cisco, through its course of conduct, continually gathered information from Centripetal as if it intended to buy the technology from Centripetal. Cisco, then, appropriated the information gained in these meetings to learn about Centripetal’s patented functionality and embedded it into its own products.”

Judge Morgan awarded damages of $2.6 to $3.2 billion for past and future damages and for Cisco’s egregious infringement. Needless to say, for a small company like Centripetal, this judgment was immensely validating and a confirmation that the U.S. patent system can work to protect individuals who have expended significant time and expense to create innovative technologies without fear that larger companies like Cisco can swoop in and unfairly exploit their hard work without consequence. This is but one example of the several other hard-fought battles that Centripetal has endured and currently is enduring to protect its intellectual property.

I wish I could tell you today that this is a classic David versus Goliath story, but the battle over the Cisco judgment is still raging and a long way from over. Serial attacks on Centripetal’s patents continue today by third parties who are trying to leverage the Cisco judgment against Centripetal. Specifically, even though the district court and the USPTO already determined that the four Centripetal patents that Cisco was found to infringe were not invalid, multiple challenges have been filed against these patents after the judgment even though they are not asserted against any other company. It is not justice if David has to slay Goliath over and over again. But unfortunately this is the current state of the patent system in the United States.

**Predatory Infringement Made Worse by PTAB Abuse**

As I sit here today, my company has faced over 30 IPR challenges against our patents, and we are certain there are dozens more in the future. This onslaught of IPR challenges is not because Centripetal has “bad” or “weak” patents. It is because we have extremely strong and very valuable patents. We have out-innovated many of the largest, most powerful technology companies in the world, and they know it. Their core goal is not to cause disruption based on the invention of

---

[Centripetal Networks, Inc. v. Cisco Systems, Inc., Civil Action No. 2:18cv94, October 5, 2020 Opinion and Order at 159-160.]
breakthrough technologies (that’s what startups do), it is to build and maintain dominant market share. The reality is that a disrupted market gets smaller because costs come down as customers pay less due to innovation.

That is why predatory patent infringement has become an institutionalized business model for Big Tech companies. Their combination of market dominance and vast resources, combined with the current IPR process allows them to delay justice almost indefinitely, all the while syphoning resources from small innovative companies like Centripetal. In the meantime, they can milk every last drop of revenue out of existing product lines and maximize earnings per share. Our case may appear rare because very few innovative startups have assembled the resources or maintained the fortitude to stand up to Big Tech companies that simply steal the ideas of smaller competitors and then unleash a campaign of IPRs and court delays to bleed them dry. But I can assure you this happens on a massive scale to countless inventors and startups that don’t have a voice and are not invited to testify before Congress. How much innovation has our country lost because of predatory patent infringement that relies on abusing the PTAB process?

Predatory infringers play the “long game” and attempt to drain small innovative companies of all of their resources until they fold their tent. In the litigation that I described, for example, Cisco raised some of the same or similar arguments that it had raised before the PTAB. For a small company, defending its patents over and over again, particularly against the same or very similar invalidity allegations that the PTAB has already determined did not justify institution of an IPR is not fair and does nothing to efficiently resolve litigation. The current IPR rules are an important part of Big Tech’s long game.

While Congress intended that PTAB trials would lower litigation costs and provide an alternative to challenging the validity of a patent in district court, the opposite has come to fruition – the IPR process has become a tool for abuse and has essentially doubled the cost of defending the validity of a patent. A patent owner who is in the market selling its patented technology and continuing to innovate, as Centripetal is, has no choice but to defend its patents in front of both the PTAB and the district court or International Trade Commission (ITC), often on the same or cumulative grounds of invalidity.

The costs are very real and substantial. It can cost a company like Centripetal a million dollars or more to defend a single patent subjected to an IPR. And in most cases, this is exactly the point for Big Tech companies infringing our patents. This is a small cost of doing business for them and a nearly free option. They aren’t filing multiple IPRs on the same patent because they have a laudable desire to “strengthen the patent system.” These are predatory tactics that have institutionalized patent theft in the United States.

---

3 See, e.g., H.R. Rep. No. 112–98, pt. 1, at 48 (2011) (“The Committee recognizes the importance of quiet title to patent owners to ensure continued investment resources. . . . [PTAB trials] are not to be used as tools for harassment or a means to prevent market entry through repeated litigation and administrative attacks on the validity of a patent. Doing so would frustrate the purpose of the section as providing quick and cost effective alternatives to litigation. Further, such activity would divert resources from the research and development of inventions.”).
It should come as no surprise that the world’s biggest technology companies – including the Chinese – are, by far, the largest filers of PTAB petitions as the following chart clearly shows:

![Big Tech Companies Are Biggest Users of PTAB](image)

We are often told that the PTAB was designed to be an “alternative” to litigation and to provide an efficient way to address “low quality patents.” Several dozen of the IPRs on this table are directed at my company, and I can assure you that our patents are extremely high quality and very valuable. Indeed, after lengthy proceedings including an eight-week trial, the district court agreed in a final judgement that a number of them are not invalid. Cisco did not even appeal that decision, making it difficult to understand what justification there is for the USPTO to entertain any additional proceedings against these demonstrably high-quality patents. For Centripetal and many other innovative startups, PTAB trials have become an expensive and time-consuming addition to litigation, not an “alternative.”

While some improvements have been made in recent years, such as putting limits on parallel and serial IPRs and attempting to limit IPRs on patents in advanced stages of parallel litigation, Big Tech’s resources, desire to destroy smaller competitors, and legal tactics allow them to find new opportunities for gamesmanship and harassment. A current problem faced by Centripetal and other startups is post-verdict double jeopardy in the PTAB. This occurs when patents that have already been found valid and infringed by a district court are still allowed to be challenged by PTAB.

Centripetal is also a case study in this emerging type of PTAB abuse. We were forced to bring a case against Palo Alto Networks for infringing thirteen of our patents that cover the heart of security products that Palo Alto Networks currently has on the market. This infringement again

---

came after conversations covered by non-disclosure agreements in which Centripetal discussed technical specifications and patented capabilities that Palo Alto Networks later incorporated in its own products. The patents at issue in the Palo Alto Networks case do not include the four patents the court found Cisco to infringe.

In order to apply pressure on Centripetal, Palo Alto Networks filed IPR petitions seeking to invalidate patents underlying the historic willful infringement damages award against Cisco. Because these patents have not been asserted against Palo Alto Networks, the only plausible reason for the IPRs is to create complexity and cost for Centripetal and to gain leverage in its own separate litigation while the Cisco judgment remains pending on appeal. Notably, these patents already survived validity challenges by Cisco in district court. Cisco challenged the validity of two of these patents in four separate proceedings at the USPTO, and the USPTO rejected each of these challenges on the merits. And these are only two of the Centripetal patents involved. To date, Palo Alto Networks has filed 17 IPR petitions challenging Centripetal patents.

**Recommendations for Congress**

Centripetal has learned a lot of hard lessons from our experience, and we would welcome the opportunity to work with the Subcommittee to strengthen our patent system, particularly for the next generation of innovative startups in critical technologies like network security, which our country desperately needs. These young companies will require world-class talent and very significant investment. They will certainly need strong patents to secure these resources and to protect them from aggressive global competitors such as China.

At minimum, Congress should reject misguided proposals to roll back some progress that has been made to rebalance our system.

Since the creation of the PTAB in 2011, the USPTO has implemented a series of policy reforms that have effectively addressed some of the worst abuses. Many of these reforms rely on the discretion that Congress vested in the USPTO Director to institute or deny IPR petitions, which has been confirmed by the Supreme Court.\(^5\) For example, a 2019 amendment to the PTAB Practice Guide curbed the practice of filing abusive sets of “parallel” petitions challenging the same patent.\(^6\) In another important development, the USPTO “recognize[d] the potential for abuse of the review process by repeated attacks on patents” and established a non-exhaustive list of factors designed “to take undue inequities and prejudices to Patent Owner[s] into account” in a precedential PTAB decision known as General Plastic.\(^7\)

The USPTO has also used its discretion to deny petitions in view of the state of co-pending litigation. In a precedent opinion known as Fintiv, the PTAB established factors for evaluating


\(^6\) See USPTO, *PATENT TRIAL AND APPEAL BOARD CONSOLIDATED TRIAL PRACTICE GUIDE* 59 (Nov. 2019 ed.) (“Two or more petitions filed against the same patent at or about the same time . . . may place a substantial and unnecessary burden on the Board and the patent owner and could raise fairness, timing, and efficiency concerns.”).

\(^7\) *General Plastic Co. v. Canon Kabushiki Kaisha*, IPR2016-01357, Paper 19, at 16-17 (PTAB Sept. 6, 2017) (precedential) (observing that “[t]he absence of any restrictions on follow-on petitions would allow petitioners the opportunity to strategically stage their prior art and arguments in multiple petitions, using our decisions as a roadmap, until a ground is found that results in the grant of review”).
parallel litigation in district courts or the ITC and confirmed that the PTAB “takes a holistic view of whether efficiency and integrity of the system are best served by denying or instituting review.”  

This reform brought PTAB trials closer to their intended purpose of providing true alternatives to litigation as part of an “efficient and streamlined patent system that will improve patent quality and limit unnecessary and counterproductive litigation costs.” Recognizing that some petitioners engaged in parallel litigation would prefer to litigate their validity challenges before the PTAB, the USPTO provided a clear option to avoid discretionary denials of IPR petitions in most circumstances. In another precedential opinion known as Sotera, the PTAB held that a petitioner’s stipulation that it “will not pursue in the District Court Litigation any ground raised or that could have been reasonably raised in an IPR . . . mitigates any concerns of duplicative efforts . . . as well as concerns of potentially conflicting decisions,” and further “ensures that an inter partes review is a ‘true alternative’ to the district court proceeding.” In other words, the USPTO gave petitioners a choice: litigate your invalidity challenges at the PTAB or in the courts, but not both.

The Fintiv/Sotera framework in particular has come under significant attack by Big Tech companies that would prefer multiple bites at the apple. These companies have mounted multiple challenges these precedents at the USPTO, in district court, in appeals courts, and even the United States Supreme Court. Thankfully, each of these challenges has failed because the clear statutory language of the AIA establishes that the USPTO has the authority to deny petitions for abusive, parallel, serial, duplicative, or otherwise improper or inefficient PTAB trials.

Were Congress to cast aside the important reforms, such as General Plastic, Fintiv, and Sotera, we would witness a tragic return to the wild west of the PTAB’s early years when innovative, venture-backed startups in the United States were largely defenseless in the face of extensive and duplicative campaigns by large tech companies to invalidate their best patents. No other legitimate legal system in the world allows a party to continually file complaints until they eventually win. Yet that is precisely the way that PTAB trials worked before the reforms of General Plastic, Fintiv, and Sotera, among others. Congress should resist calls to once again tip the scales of the PTAB in favor of large multinational companies that already benefit from the advantages of market dominance and seemingly endless resources.

Congress could also make several common-sense legislative changes that would improve the PTAB process for innovative startups and incentivize more investment and growth in critical technology sectors.

For example, Congress should impose a standing requirement for IPRs. Allowing anyone to file an IPR petition has led to all types of predictable abuses. The lack of any reasonable standing requirement has allowed large technology companies, their proxies such as Unified Patents, and

---

8 Apple Inc. v. Fintiv, Inc., IPR2020-00019, Paper 11, at 6 (PTAB Mar. 20, 2020) (precedential); see also id. at 14 (“[T]he factors considered in the exercise of discretion are part of a balanced assessment of all the relevant circumstances in the case, including the merits.”).
12 See Mylan Labs. Ltd. v. Janssen Pharmaceutica, N.V., 989 F.3d 1375, 1382 (Fed. Cir. 2021) (The “Director is permitted, but never compelled, to institute an IPR. And no petitioner has a right to such institution.”).
PTAB profiteers such as OpenSky to deploy a raft of abusive tactics designed not to address the purported issue of “bad patents,” but rather to systematically target valuable patents held by smaller competitors through serial, coordinated IPRs. In fact, several authors of the AIA, including one of its namesakes, former Representative Lamar Smith, understood that an unfettered IPR process would certainly be gamed by large infringers. They probably hadn’t fully formed the concept of “efficient infringement” at the time, but former Rep. Smith recently noted in a Bloomberg op-ed that the AIA has proven “unequal to the task” of preventing patent-owner harassment, and “entire industries have emerged to perpetuate these abuses.”

Congress should also further harmonize PTAB and district court trials by requiring the PTAB to recognize the presumption of validity for issued patents and requiring petitioners to meet the same clear-and-convincing-evidence burden of proof to invalidate patents in district court litigation. These changes would promote consistency and predictability in resolving validity disputes.

Congress should also reconsider the estoppel that applies to unsuccessful petitioners at the PTAB. It makes sense that losing petitioners should not be able to assert the same or similar arguments in district courts or the ITC that the PTAB rejected in a final written decision, but what about arguments so weak that the PTAB declined even to institute review? Why should petitioners be free to advance these same meritless claims again in subsequent litigation proceedings? My company experienced exactly this scenario, which undermines efficiency, imposes unfair burdens, and fundamentally does not make sense.

I would like to close with a new recommendation to Congress, based on what I’ve experienced first-hand. I am an engineer and was a relative outsider to this entire process a decade ago when the America Invents Act (AIA) was enacted, but one thing that always made the headlines was the effort to fight “patent trolls.” I’m not sure how widespread and serious this problem truly is, but to the extent that some people are trying to abuse the system and exact nuisance payments for broad or vague patents, I agree we should address that. Again, as a fairly casual observer until I was dragged into the process, I thought that was the goal of the AIA. That has certainly not been the outcome, however, as large technology companies have hijacked the PTAB to crush smaller competitors. I would ask Congress if that was truly the intent.

I suggest that Congress consider legislation to restore the AIA to the stated intent of addressing abusive patent litigation by eliminating IPR petitions filed against direct competitors. For patent infringement disputes that involve legitimate marketplace competitors, district courts or the ITC are by far the most appropriate venues for addressing the full range of infringement and validity issues in such disputes, including robust discovery related to the objective indicia of non-obviousness, such as obviousness and commercial success frequently at issue in competitor cases. At minimum, a PTAB trial should not be in addition to litigation in court, and if one proceeds, the other should end (or not be instituted). This process worked for over 200 years before the AIA, and we should return to it. We should be honest about what PTAB has become. As the chart above clearly shows, the PTAB has become a government-sanctioned framework for large technology companies to launch complex and expensive challenges on their competitors. It is not

being used to address the type of abuses that it was sold to cure. If you have a strong patent that challenges the market share of a large technology company that you are competing against, it is a certainty that you will face a barrage of IPRs in addition to traditional litigation. The PTAB has become a tool to attack competitors, not an altruistic tool to address low quality patents asserted for dubious reasons. Legislation should be advanced not under the auspices of “what to do about patent trolls”, but under the goal of “what to do to speed resolution for infringed operating companies”. These participants in domestic industry should be exempted from this process.

I thank you again for the opportunity to appear before you today. Centripetal’s story is one I wish I did not have to share with Congress, but I am incredibly grateful for the chance. I look forward to working with you to strengthen the U.S. patent system for innovative startups everywhere.