American University Law Review

Volume 66
Issue 4 *Federal Circuit Issue*

Article 1

2017

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William H. Pauley III
United States District Court, Southern District of New York

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Keywords
Federal Circuit Symposium, patent law, judges, district court, intellectual property, IP

REMARKS

AT&T V. MICROSOFT: A DISTRICT JUDGE'S PERSPECTIVE

THE HONORABLE WILLIAM H. PAULEY III*

This paper is derived from remarks delivered at the American University Law Review*'s Federal Circuit Symposium on January 27, 2017.*

I want to thank the *American University Law Review* for inviting me to participate in their Federal Circuit Symposium this year. Unlike most of you in the audience who are here because you have a specialized interest in patent law—either as practicing patent lawyers or students exploring a career in patent law—District Judges are the quintessential generalists. We take every kind of case. If you want to start thinking about the breadth of cases we see, just take a look at the United States Code on a bookshelf. The USCA consists of more than five hundred volumes that span sixty-four feet of shelf space. It's a lot bigger than it appears on a Westlaw browser screen. And that's just the United States Code—diversity jurisdiction brings in so many other types of disputes that exist only in state law.

Because random case assignment is a hallmark of federal courts, cases come in no particular order or rhythm. Indeed, in the Southern District of New York, there are ninety-two "wheels"—a sort of electronic "hat" for each type of case—from which a party filing a new lawsuit draws a judge. As an active District Judge, I'm in all ninety-two civil wheels. Three of them relate to what are characterized generically as "property rights"—copyright, patent, and trademark. Approximately 10,000 civil cases are filed each year in the Southern District of New York. And in each of the last five years, approximately

* United States District Judge for the Southern District of New York.

130 of those filings were patent cases and about 225 were trademark cases. In 2016, 290,000 civil cases were filed nationwide, of which roughly 12,000 were patent, copyright, and trademark.

I've had the privilege of serving in the Southern District of New York for more than eighteen years. Prior to being appointed a District Judge, I practiced for twenty years in a midtown Manhattan litigation boutique. When I came on the bench, I had little experience with patent law or patent litigation. But one of the most exhilarating aspects of being a District Judge is tackling new subjects with assistance from talented young law clerks. Early on, I realized that a law clerk with an engineering, science, or math background could be a great asset in chambers. As soon as I became a judge, I received patent cases and began to encounter esoterica such as claim construction, prosecution history, and invalidity.

As you are all undoubtedly aware, patent law has become a hot topic in the Supreme Court of the United States. After reviewing only five patent cases in the first fifteen years of the Federal Circuit's existence, the Supreme Court has granted cert in patent cases at a remarkable rate since 2000. From the perspective of a Federal Circuit judge, this likely turned out to be unwanted attention—one study from 2010 noted that no Circuit experienced a higher reversal rate by the Supreme Court between 1999 and 2008 than the Federal Circuit. And that's considering that the Ninth Circuit is a tough competitor in this category. In an era that has seen such rapid technological advancement, however, it seems logical that the Justices would focus on the legal frameworks that govern property rights in these new, often wildly valuable technologies.

This morning I'd like to talk to you about one of those Supreme Court cases that some commentators have identified as one of the most significant patent cases in the last fifteen years. It's a case that I have some familiarity with because it started in my courtroom.

In April 2001, AT&T sued Microsoft for infringing its patent relating to speech compression technology. *AT&T v. Microsoft*[1] was randomly assigned to me from the patent wheel. While I didn't know much about the suit or about patent law, I did get an inkling that it might turn out to be a large case. Sixteen years later, I can say that my initial hunch was spot on.

I want to give you an overview of the case from a trial judge's perspective. *AT&T* had everything a lawyer or judge might want,

1. AT&T Corp. v. Microsoft Corp., No. 01 Civ. 4872 (WHP), 2004 WL 406640 (S.D.N.Y. Mar. 5, 2004), *aff'd*, 414 F.3d 1366 (Fed. Cir. 2005), *rev'd*, 550 U.S. 437 (2007).

including all kinds of motions, a jury trial, a settlement, an appeal to the Federal Circuit, a grant of certiorari by the Supreme Court, and an opinion by Justice Ginsburg reversing the Federal Circuit and yours truly. It's likely that all of you only know *AT&T v. Microsoft* for its holding under [35 U.S.C.]§ 271(f). Of course, I didn't take the Supreme Court's reversal of my decision personally because I only did what any District Judge strives to do: conform to the law as set out by the Court of Appeals. After all, in patent cases, it's the Federal Circuit that grades my papers. And the Federal Circuit affirmed my opinion.

Before I go too much further, let me briefly describe the nature of the patented invention at issue. In 1981, Dr. Bishnu Atal, working at Bell Labs in Basking Ridge, New Jersey, solved a problem that had challenged scientists around the world for fifty years; namely, how can we store and transmit natural-sounding speech communications between electronic devices, especially as those devices become smaller and smaller? Dr. Atal's discovery contributed to a revolution in telecommunications that sparked the exponential growth of the cell phone industry and the advent of computers as communication tools. At first, testing this invention took an extraordinary amount of computer power and required a Cray supercomputer. But improved computing speed in the late '80s and early '90s made the use of Dr. Atal's technology practical through the same kinds of microchips that you all have in your smartphones. In essence, this invention turned the robotic, monotone voice that those of us who were around in the '70s heard into the natural and identifiable human voice. This revolutionary technology became part of the international standard for digital communications; the same standard that supports, for example, the voice component of your Skype call with a friend overseas.

As I said earlier, I had a hunch this might be a big case. And because a lot was at stake, there were great lawyers on both sides who left no stone unturned. Just after the case was assigned to me, and before I even met the attorneys, they wrote to me explaining that they had checked my financial disclosure statement and discovered that I owned a few common shares of the parties. Of course, equity ownership in a party is disqualifying under [28 U.S.C.]§ 455. But fortunately for me, if not for the parties, this was a good catch by counsel but a false alarm because shortly after I came on the bench, I sold all of my stocks to avoid potential conflicts that might require me to recuse. And I'm certainly glad I did, because this case, among many others that I've had over the years, was a real treat.

The Atal, or '580 patent, was titled "Digital Speech Coder" and contained forty-three claims that included four reissue claims and

seven figures.[2] AT&T alleged that Microsoft products containing speech codecs, including Windows and NetMeeting, among many others, infringed the '580 patent. A speech codec is a software program capable of coding—converting a speech signal into a more compact code—and decoding—converting the more compact code back into a signal that sounds like the original speech signal. AT&T alleged that the International Telecommunications Union (ITU), an organization that establishes and administers technical standards in the communications technologies field, adopted the '580 patent technology as necessary to practice worldwide. AT&T claimed that Microsoft failed to obtain a license to use the '580 patent technology.

Claim construction is often one of the early hurdles in a patent litigation. In this case, it was a major undertaking. Microsoft asserted that over forty claim terms and phrases required construction, while AT&T thought just three would do. I urged the parties to reach agreement and required them to work together on a joint claim-construction statement. They wound up narrowing the number of claims and terms to a more manageable (although still onerous) thirteen. Of course, you know that in looking at a claim and analyzing the intrinsic evidence, claim terms should carry the meaning given them by one of ordinary skill in the art. Here, the parties agreed that "one of ordinary skill in the art" was "a person with a master's degree in electrical engineering or its equivalent, with two to four years of experience in the field of speech compression, or a PhD in electrical engineering or its equivalent, with a focus on speech compression."[3] Already, you can see the air was getting thin.

The claim terms and phrases that the parties disputed ranged from the seemingly obvious to the elusively sublime. Among the obvious claim terms were "representative," "converting," and "speech pattern." Among the more exotic were "spectral representative signals," "plurality of pulse amplitude and location coded signals," and "means for producing a predictive residual signal."

In order to better understand the technology unaided by an advanced degree in electrical engineering, the parties proposed, and I gladly agreed to, a tutorial. I received a tutorial from several experts with exquisite PowerPoint presentations. And then, in a 26-page Westlaw opinion reported at 2003 WL 21459573, I construed each of the thirteen disputed terms and phrases. For example, after

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2. U.S. Patent No. RE32,580 (filed Sept. 18, 1986).

3. AT&T Corp. v. Microsoft Corp., No. 01 Civ. 4872 (WHP), 2003 WL 21459573, at *3 (S.D.N.Y. June 24, 2003).

considerable litigation and innumerable dictionary definitions, I construed "representative" to mean "one that in some way symbolizes, represents, replaces, or is equivalent to something else."

One of the challenges in any patent case is to make the case and the technology understandable to a jury. To winnow this mega-case down to manageable proportions, the parties proposed to raise a number of issues by way of discrete motions for summary judgment.

Six months before trial, Microsoft moved for partial summary judgment to limit AT&T from seeking potential damages pursuant to [35 U.S.C.]§ 287(a), the patent marking and notice statute. Microsoft argued that the patent marking requirements of § 287(a) limited any potential monetary recovery to damages for infringement accruing after April 2, 1999, when AT&T sent a letter to Microsoft charging patent infringement. AT&T countered that it put all users of the codec on notice of AT&T's patent rights through a press release in 1995 advising all technology companies that a patent license was a prerequisite to practicing the international standard incorporating the '580 patent. Ultimately, I concluded that only AT&T's 1999 letter to Microsoft was sufficient to give notice.[4]

Four months before trial, the parties briefed motions for partial summary judgment addressed to two of Microsoft's affirmative defenses: equitable estoppel and implied license. Drawing on extensive deposition testimony, Microsoft attributed its implementation of the accused codecs to Microsoft's desire to utilize the latest ITU standard-compliant technology. But Microsoft could offer no evidence from which one might infer AT&T's consent to Microsoft's use of the accused codecs. Therefore, I dismissed the equitable estoppel affirmative defense. I also dismissed the implied license affirmative defense, finding that Microsoft did not rely on any conduct or inaction by AT&T that could be construed as acquiescence to use of the accused codecs.

On February 9, a few weeks before trial, I decided another partial summary motion regarding Microsoft's affirmative defense and counterclaim of inequitable conduct. This motion necessarily plumbed the prosecution history of the patent. The inequitable-conduct claim revolved around whether AT&T withheld a research paper Dr. Atal presented at the Institute of Electrical and Electronics Engineers, Acoustics, Speech, and Signal Society conference in April of 1980. The title of the paper was a real show-stopper: "Improved Quantizer for Adaptive Predictive Coding of Speech Signals at Low

4. *See* AT&T Corp. v. Microsoft Corp., 290 F. Supp. 2d 409, 418 (S.D.N.Y. 2003).

Bit Rates." I granted AT&T's motion and precluded Microsoft from asserting inequitable conduct at trial because Microsoft could not show an intent to deceive by clear and convincing evidence.

Later, in another summary judgment motion, Microsoft asserted that the reissue claims were invalid because Dr. Atal's paper anticipated them. There, the issue became whether the paper was a "printed publication" that was "sufficiently available to the public through conventional research aids." Oral presentations of academic papers alone do not constitute printed publications. So remember, I told you—no stone was left unturned. Experts opined on whether Dr. Atal's paper qualified as a printed publication. Microsoft obtained sworn statements from the chair and vice-chair of the 1980 conference, and even offered a declaration from the Drexel University librarian reporting when Dr. Atal's 1980 paper was first borrowed from the library.

Another motion also raised the invalidity of certain claims. The '580 patent resulted from a reissue application and contained four new reissue claims. AT&T's reissue declaration identified certain errors in the earlier patent's claims and attributed the errors to AT&T's in-house attorney, who purportedly failed to understand the true scope of the invention due to his lack of speech-coding expertise.

Aside from these partial summary judgment motions, the parties presented numerous motions in limine. A few examples will give you the flavor: (1) a motion to preclude Microsoft from introducing evidence of allegedly infringing activity taking place prior to the commercial release of Windows 95, (2) a motion to exclude testimony and evidence about usage of the accused products, (3) a motion to exclude testimony concerning the alleged equivalence of structures in Microsoft's products to elements of the apparatus claims, and (4) a motion to exclude evidence concerning the value of Windows and comparing a proposed royalty to Windows' revenues.

On February 24, 2004, I selected a jury, and we started what the parties anticipated would be a five-week trial. To introduce the jurors to patent law, counsel for the parties agreed with each other and recommended to me that we begin the trial with an 18-minute video prepared by the Federal Judicial Center that describes in elemental ways the process of applying for and obtaining a patent from the U.S. Patent & Trademark Office.

Opening statements began the following morning to a packed courtroom of engineering geeks, corporate executives, and financial media. The obvious challenge in this case was to translate this incredibly complicated technology into lay terms that a jury could

understand. The lawyers did just that. AT&T's lawyer told jurors that Microsoft used a valuable, patented invention that belonged to AT&T, and used it without AT&T's permission and without paying for it. Many companies in the entire world, he said, used the exact same invention—and all of them paid AT&T a fair and reasonable price for using it. But, he said, "when we called Microsoft on its use of our invention without paying for it and without permission, what they did is give us excuses and delay, and they still give us excuses, and that's why we're here today."

The lawyers explained how the invention contributed to a revolution in telecommunications around the world and how its technology became the global standard. They explained how the human voice works and how people are able to hear each other. They described how Alexander Graham Bell discovered that it was possible to take vibrations of air molecules and turn them into electrical waves that could be transmitted over a wire to a receiver at the other end. Then, as scientists began a quest to transmit voice communications over long distances, they discovered that it was possible to take Alexander Graham Bell's analog electrical signals and turn them into numbers. And that gave rise to the ability of computers to take electrical impulses, convert them to numbers, and enter the realm of telecommunications. After digitization, the quest for compression, or reducing the amount of information that you had to use to send voice communications, continued. In 1981, scientists figured out they could create a mathematical model describing what the human voice track looked like at any moment in time and whether you were using your vocal cords. For fifty years, scientists grappled with a way to send natural-sounding speech over long distances.

AT&T's counsel introduced the jury to Bishnu Atal. He described how Bell Labs recruited Atal when he was a young man in India and how when Atal arrived in the United States and went to work at Bell Labs, he was not asked to work on anything in particular for years and simply told that if he found something interesting in his research to go knock on a colleague's door.

On direct examination, AT&T's counsel asked Atal whether there ever came a time that Bell Labs asked him to do something. Very modestly, Atal answered "yes." One day, the management of Lincoln Center contacted Bell Labs because Leonard Bernstein and his audiences thought there was something wrong with the acoustics in Lincoln Center's grand new Philharmonic Hall. Atal was asked to find the problems and fix them. He worked on it for four years, collaborating with Leonard Bernstein and a leading architect of the

time, trying to understand how to redesign the music hall. As Atal put it, "the good part was working with Leonard Bernstein, and the bad part was that he could only work at night because the musicians rehearsed during the day." So for four years, he worked with a team of scientists from 11:00 p.m. at night until 6:00 a.m. in the morning and then analyzed the results of their work during the day. Ultimately, Atal succeeded and turned Philharmonic Hall into a Carnegie Hall. And so everyone in the courtroom got to spend a day and half with a truly remarkable individual.

I share this only to show how much one can learn in the course of a trial, including a trial like this one, which pressed the boundaries of esoteric physics and computer science. We tried the case four days a week and then each Saturday, at my direction, the parties and their attorneys traveled to our courthouse in White Plains to discuss settlement with my then-colleague Senior Judge William C. Connor, the only District Judge in the United States admitted to the Patent Bar. At these sessions, the parties discussed the evidence adduced at trial, the legal theories underpinning the claims, and the impact of my decisions on various substantive issues.

After two and a half weeks of trial, AT&T rested and Microsoft was set to begin its case. But by that time, Microsoft acknowledged liability for infringing sales of its software in the United States, and the parties presented me with one more summary judgment motion. Microsoft moved for partial summary judgment, seeking to exclude sales of goods incorporating foreign replicated copies of the alleged infringing software, including Windows, from any damages award. The parties informed me that they had settled the case, provided that I decide the motion.

This motion turned on an interpretation of § 271(f) of the Patent Act, which had been enacted in response to *Deepsouth Packing Co. v. Laitram Corp.*,[5] where the Supreme Court had recognized a loophole in infringement law allowing copiers to escape liability by finalizing assembly of products outside the United States. In *Deepsouth*, the Supreme Court held that manufacturing the components of a patented invention in the United States and assembling those components into the patented invention outside the United States did not constitute infringement. Microsoft argued that a foreign-replicated copy of the infringing software was not a "component" under the statute and thus could not trigger § 271(f). That seemed somewhat curious to me, given that Microsoft's whole business is

5. 406 U.S. 518 (1972).

producing and selling software. Microsoft shipped "golden master discs" with infringing object code to foreign original equipment manufacturers, rather than shipping one CD for each computer being manufactured overseas. AT&T argued that the object code on the golden master was an essential component of the finished computer product. I agreed with AT&T and held that the finished computer product assembled overseas was driven by the code that included AT&T's patented technology.

The parties' agreement to settle the case included a motion for summary judgment based on stipulated facts and a careful reservation of rights to ensure that whatever my decision might be on the issue, it would be appealable by the party that lost. It also provided that Microsoft would make a substantial payment to AT&T in settlement of all issues in the case other than the § 271(f) question. Finally, it provided that Microsoft would make a much larger payment to AT&T in the event that it was the losing party after all appeals were exhausted, or if the Federal Circuit declined to accept jurisdiction. Judgment was entered in favor of AT&T that the '580 patent was enforceable and not invalid.

An adverse decision on § 271(f) had profound implications for Microsoft and other technology companies and software developers. Indeed, it's difficult to estimate the liability for damages that Microsoft may have faced if it did not prevail on the § 271(f) issue.

In a split decision, the Federal Circuit affirmed my § 271(f) holding. And thereafter the Supreme Court granted cert and, as you all know, reversed the Federal Circuit. I attended the oral argument at the Supreme Court and invited my former law clerks to join me there. Many of the lawyers who appeared before me were also present. So three years after the trial, it was something of a homecoming.

Both parties retained top Supreme Court advocates to argue their cause before the Supreme Court. Ted Olson argued for Microsoft and Seth Waxman for AT&T—both former Solicitors General. Twenty amici briefs were filed by various business and technology companies and advocacy groups. As reported by the *Wall Street Journal*, this appeal was the first time that Microsoft, the largest software developer in the world, had ever been before the Supreme Court. And Microsoft itself recognized the moment because a number of top executives who were also attorneys were sworn in as members of the Supreme Court Bar in a brief ceremony by Chief Justice Roberts just prior to oral argument.

A moment ago, I described the complex stipulation that the parties entered into when they settled the case before me. And it was very

important to them that they have a final appealable order on the § 271(f) issue, even though they had settled the case. In an ironic twist, the first question out of the box in the Supreme Court came from Justice Scalia to Ted Olson. And I'd just like to quote:

> SCALIA: Mr. Olson, before you get into the merits, I have a question, a preliminary question. I understand from AT&T's brief that there's been a stipulation entered into between the parties after the judgment below which preserved Microsoft's right to appeal and prescribed different dollar amounts that Microsoft must pay AT&T depending on the outcome of the appeal. Does that raise any mootness problem? Can you sort of wage on the outcome of an appeal that way?
>
> OLSON: No, I don't believe so.
>
> SCALIA: Well suppose two parties just, you know, parties that otherwise do not have a case or controversy, bet each other that the district court will come out one way or the other way in, in a trumped-up suit. Does that create standing?
>
> OLSON: This is by no means a trumped-up suit. It's a very serious suit. The outcome, the judgment, the amount of damages that must be paid is not a matter of wager. It depends upon the decision of a matter of law of an interpretation of a statute of the United States.
>
> SCALIA: Well you could say the same thing in the hypothetical I gave. It is a matter of wager, which way the Court will come out.
>
> OLSON: This is an entirely legitimate, I submit, means by which parties may preserve a legal issue depending upon how a legal question is decided. The only thing that's been resolved is the amount that will be paid as damages depending upon the outcome of the appeal.

After some further colloquy, Justice Kennedy weighed in and opined that there would be a case-or-controversy problem if the amount were trivial. Olson responded, ": I don't know what the Court might mean by the word trivial, Justice Kennedy, but this is a very significant major amount involved in this case. There is no question that the parties are very serious. It's a very significant legal question with respect to the interpretation."

Justice Scalia concluded the colloquy by asking whether there was a lot of money involved depending on whether you win or lose. Mr. Olson had a one-word affirmative answer.

The Supreme Court reversed the Federal Circuit and limited the enforceability of U.S. patents for software installed overseas. In a 7–1 decision authored by Justice Ginsburg, the Court held that the Windows operating system that had AT&T's infringing voice-

compression code was an abstract set of instructions and could not be regarded as a "component" for purposes of § 271(f). Thus, § 271(f) does not apply where the copies were created overseas using a "golden master disk" shipped from the United States and installed in foreign-manufactured computers. Justice Stevens dissented. The opinion is reported at 127 S. Ct. 1746.

So I hope if I'm leaving you with anything this morning, the takeaway is that patent litigation can be as engaging and challenging as any complex class-action litigation that may spill across the front pages of our nation's newspapers. And while many of you may only know this case for the Supreme Court's holding on foreign manufacture under § 271(f), you can now see from a District Judge's perspective that there was a whole lot more to the case of *AT&T v. Microsoft*.