

Deterring “Patent Ambush” in Standard Setting: Lessons from *Rambus* and *Qualcomm*

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STANDARD-SETTING ORGANIZATIONS (SSOs) face inherent risks of “patent ambush” conduct. The classic scenario occurs when an SSO participant, by failing to disclose relevant intellectual property rights, either causes or allows the SSO unwittingly to adopt an industry standard incorporating the participant’s patented technology. This can serve to trap later adopters of the standards, who over time become “locked in” to the manufacture or use of standards-compliant products, conferring considerable economic leverage upon the patent holder and thus facilitating opportunistic hold ups. Many SSOs seek to prevent such conduct by generally disfavoring standards that embody patented technologies and by requiring participants to license relevant patents on terms that are reasonable and non-discriminatory (RAND). Where these efforts fail, an entire industry may face exorbitant royalty demands, which can result in litigation.

This article addresses two notable cases dealing with allegations of patent ambush: *FTC v. Rambus*, a government antitrust action; and *Qualcomm v. Broadcom*, a private patent dispute. Both cases were recently concluded in the wake of federal appellate court rulings, by the D.C. Circuit in *Rambus* and the Federal Circuit in *Qualcomm*. The factual parallels in these two cases are striking, but perhaps most interesting, if not ironic, is the divergence in outcomes.

The FTC has cultivated a role for antitrust enforcement in this area, motivated in part by concerns that private patent disputes are unlikely to remedy the broader market implications of an SSO-related patent ambush. In *Rambus*, however, years of litigation in the Commission’s most significant enforcement action to date failed to produce any tangible results. The Commission was unanimous in finding Rambus liable for antitrust violations but struggled to agree on a suitable remedy. The D.C. Circuit then ruled in favor of Rambus on appeal, the Supreme Court denied the FTC’s writ of certiorari, and after nearly seven years of litigation the Commission recently abandoned the case altogether.

Qualcomm’s private patent suit against Broadcom also was recently resolved on appeal, with the outcome turning on

Broadcom’s allegations of patent ambush. Applying the doctrine of implied waiver—a patent defense raised by Broadcom—the Federal Circuit ruled Qualcomm’s patents unenforceable not only against Broadcom, but against all products that comply with the relevant SSO standards. Thus, Broadcom was able to use a common law defense in a two-party patent dispute to secure broad and definitive relief to the benefit of an entire industry. In short, it was able to achieve what the FTC sought but failed to achieve in *Rambus*.

What lessons can be learned from the divergent outcomes in *Rambus* and *Qualcomm*? Does the Federal Circuit’s decision in *Qualcomm* signal a willingness on the part of courts in patent litigation to issue broad remedies addressing the industry-wide threats that patent ambush conduct can pose? If so, would patent law defenses and counterclaims to patent infringement be an effective deterrent to improper conduct by SSO participants? And would the potentially expanded scope of relief available to patent litigants reduce the need for government antitrust enforcement in this area? We explore these and other questions below, after first describing the two cases in more detail.

FTC v. Rambus

To appreciate the reasons that the FTC brought the *Rambus* case in 2002, it is necessary to understand the legal landscape that existed at the time. Courts first confronted patent ambush conduct in patent infringement suits, ruling on traditional defenses and counterclaims such as laches, waiver, actual or implied license, equitable estoppel, and fraud. Each of these doctrines has proof requirements that may limit their utility in the context of challenges to patent ambush. For example, parties asserting traditional patent defenses may be required to prove direct privity or specific reliance, elements that many victims of patent ambush may be unable to satisfy. A fraud counterclaim also may require proof of specific reliance, and such claims typically are subject to heightened standards of pleading and proof. The available remedies for patent law defenses and fraud-based counterclaims to patent infringement also may be narrowly tailored to address only the interests of the prevailing litigant. Thus, in the patent ambush context, while the party successfully asserting such a claim or defense might obtain relief for itself, the broader group of industry participants affected by the challenged conduct could remain vulnerable to infringement claims and opportunistic royalty demands. This perception, at least, was common before the court rulings in *Qualcomm*.

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Antitrust-based legal theories for challenging patent ambush conduct arose in part to fill this perceived “gap” in the law. The first antitrust enforcement action challenging such conduct culminated in an FTC consent order with Dell Computer Corporation (now Dell Inc.).¹ Although the matter was never litigated and the Commission’s actions were criticized in some quarters for lack of clarity, the *Dell* consent order was a notable attempt to bring antitrust principles to bear in addressing what by then had become a growing concern in many standards-reliant industries.²

In *Rambus* the FTC took a somewhat bolder step, approving an administrative complaint that would result in nearly seven years of litigation. The litigation centered upon the FTC’s allegation that Rambus deceived JEDEC, a well-known electronics industry SSO, by concealing relevant patent information during JEDEC’s development of the SDRAM computer memory standards, and later asserting patent claims against firms employing these near-universal industry standards.³

The FTC’s antitrust complaint against Rambus was by no means a surprise. Before the complaint was filed, many within the antitrust, SSO, and high-tech communities were aware of the FTC’s investigation, although there was not uniform agreement that an FTC suit was the best course to follow. Notably, by mid-2002 Rambus had already suffered a significant legal setback in a patent suit against German computer memory manufacturer Infineon. The federal trial court upheld the jury’s liability verdict on Infineon’s fraud counterclaim,⁴ which was predicated on the same basic facts that the FTC was investigating, and the suit was then pending on appeal before the Federal Circuit. Meanwhile, Rambus’s patent suits against two other memory makers, Hynix and Micron, were proceeding, and both defendants asserted defenses and counterclaims attacking Rambus for alleged misconduct associated with the development of JEDEC’s SDRAM standards.

Despite the Federal Circuit’s ongoing review of the trial court’s decision in *Infineon*, the FTC made the controversial decision to press forward with its antitrust enforcement action against Rambus. In the view of the FTC and its staff, government intervention was warranted to protect the broader marketplace. Even after the Federal Circuit reversed the fraud ruling against Rambus in the *Infineon* litigation, the FTC persisted with its antitrust attack, citing “significant differences in the factual and legal issues” raised in its case.⁵ Significantly, while the Federal Circuit reviewed Infineon’s fraud defense under the “clear and convincing evidence” standard, the FTC’s antitrust claims were subject to a lower “preponderance of the evidence” standard.

The FTC based its antitrust case on the following core allegations: In or around 1990, Rambus sought to patent its proprietary architecture for a next-generation computer memory technology. At the same time, JEDEC was engaged in an open standard-setting process involving a broad range of computer industry participants. In early 1991, Rambus began

attending JEDEC meetings and discovered that, by amending various pending patent applications, it could obtain patents covering various technologies slated for inclusion in the new standards. Rambus allegedly pursued this scheme over the course of several years, fully intending to eventually exert patent rights over JEDEC-compliant products, but all the while concealing its patent strategy from fellow JEDEC members, arguably in violation of JEDEC’s patent disclosure rules. In 1996, Rambus withdrew from JEDEC, and the organization’s memory protocols subsequently became dominant industry standards. Then in early 2000, after making substantial progress in quietly building its patent portfolio, Rambus began demanding royalties from firms whose products incorporated JEDEC-compliant memory designs.

According to the FTC, Rambus, through this pattern of conduct, engaged in unlawful monopolization. A complete history of the FTC’s *Rambus* litigation is well beyond the scope of this article. What bears emphasis here is that the litigation has consumed a tremendous amount of Commission resources; it has taken many years to resolve; and the Commission ultimately failed to obtain any final remedy against Rambus. This outcome stems to some extent from complexities associated with proving liability and establishing the scope of proper remedial action within the context of an antitrust-based challenge to conduct of this nature.

Perhaps the thorniest issue for the FTC in *Rambus* was causation. In rendering its liability decision, the Commission held that Rambus’s manipulation of the JEDEC standard-setting process allowed it to gain monopoly power.⁶ In support of this holding, the Commission evaluated a hypothetical “but for world” in which Rambus made all required patent-related disclosures to JEDEC, and concluded that the outcome in such a scenario “would have been more competitive.”⁷ While this was sufficient, in the Commission’s view, to establish the requisite causal link between Rambus’s challenged conduct and its acquisition of monopoly power, the Commission’s subsequent remedy determination required a more detailed analysis. In the Commission’s view, had JEDEC been fully informed about Rambus’s patent positions, one of two outcomes was likely: either (1) JEDEC members would have negotiated ex ante RAND licensing commitments from Rambus; or (2) JEDEC would have chosen to substitute alternative technologies in place of designs that implicated Rambus’s patent claims.⁸ Given that it could not rule out the possibility that, in a “but for” world, Rambus would have been in a position to charge RAND royalties, the Commission declined to order the remedy favored by FTC complaint counsel—i.e., that Rambus be restricted to granting royalty-free licenses. Instead, the Commission prohibited Rambus from collecting royalties from JEDEC users above levels the Commission deemed “reasonable.”⁹

The Commission’s unanimous decision finding liability against Rambus marked the first time that conduct of this nature had ever been held to violate the antitrust laws.¹⁰ The Third Circuit, relying upon the FTC’s guidance to address

similar conduct, declared the FTC's *Rambus* decision a "landmark" ruling,¹¹ but on appeal the D.C. Circuit reversed the Commission, and the U.S. Supreme Court recently denied certiorari.¹² The FTC's uncertainty about the outcome in the "but for" world ultimately proved fatal to its case. The D.C. Circuit seized on this uncertainty as a virtual admission that Rambus's challenged conduct did not cause its monopoly power. In the court's words, "if JEDEC, in the world that would have existed but for Rambus's deception, would have standardized the very same technologies, Rambus's alleged deception cannot be said to have had an effect on competition in violation of the antitrust laws."¹³

Qualcomm v. Broadcom

As the *Rambus* case was wending its way through the FTC and the courts, similar issues were being addressed in the context of a private patent dispute between Qualcomm Inc. and Broadcom Corp. Although there are many differences between the two cases, *Qualcomm* and *Rambus* involve closely analogous allegations of improper conduct by an SSO participant intent upon exploiting the standard-setting process for private gain. Qualcomm, like Rambus, was alleged to have deliberately failed to disclose its relevant patent position to an SSO, with the eventual aim of surprising the affected industry with unanticipated royalty demands. Qualcomm, like Rambus, also defended its actions by arguing that SSO patent disclosure policies were ambiguous and that it had not violated any clear duty to disclose patents.

Despite these factual similarities, the two cases traveled distinct legal paths with markedly different outcomes. Both Qualcomm and Broadcom were members of JVT, an SSO responsible for developing new industry standards for video compression technology. Broadcom alleged that Qualcomm deceptively failed to disclose patents reasonably necessary to practice the JVT standard.¹⁴ Both the district court and Federal Circuit considered in detail the scope of Qualcomm's disclosure obligations, whether Qualcomm breached that duty, and whether Qualcomm's patents were "reasonably necessary" to practice the relevant standard. Both courts concluded that Qualcomm's conduct was, at a minimum, inconsistent with the expectations of disclosure that existed among JVT's members. The Federal Circuit went even further, concluding that Qualcomm failed to comply with an affirmative duty to disclose relevant patents rooted in JVT's written disclosure policy. Based on this conduct, the district court ruled that Broadcom had satisfied the proof requirements for the implied waiver doctrine, with the consequence of rendering Qualcomm's patent unenforceable "against the world."¹⁵ The Federal Circuit affirmed, but modified the remedy to bar Qualcomm from enforcing the relevant patents against any manufacturer or user of standard-compliant products.¹⁶

What is most notable here is the relative ease with which the district and appellate courts each settled upon such a broad remedy for Qualcomm's misconduct. Neither the district court nor the Federal Circuit in *Qualcomm* expressed any

reservation about granting industry-wide remedies for Qualcomm's patent ambush conduct, nor did either court have difficulty concluding that Broadcom had met the evidentiary requirements for its implied waiver defense, even under a clear and convincing standard of proof. The basic question, as articulated by the district court, was whether Qualcomm "intentionally relinquished its rights to enforce" the asserted patents or otherwise engaged in conduct "so inconsistent with an intent to enforce its rights as to induce a reasonable belief that such right has been relinquished."¹⁷ This approach avoided some of the complexities of proof that the FTC was unable to surmount in *Rambus*, in particular the burden of proving what the SSO would have done in the "but for" world, absent the alleged patent ambush conduct. Indeed, as the courts in *Qualcomm* applied the implied waiver doctrine, Broadcom was not required to offer any proof of impact on the outcome of the standard-setting process.

The Role of Antitrust Enforcement After Rambus and Qualcomm

The FTC sought but failed to obtain a remedy in *Rambus* to protect all market participants affected by the challenged conduct. Broadcom, in contrast, achieved industry-wide relief using a traditional common law defense. There is a hint of irony in these divergent outcomes, but it is unclear whether they signal any significant shift in the respective roles of antitrust enforcement and traditional patent defenses and counterclaims in redressing and deterring patent ambush conduct.

The FTC's loss on appeal in *Rambus* should not, and likely will not, materially reduce the level of antitrust enforcement in this area. While the D.C. Circuit reversed the finding of liability against Rambus due to perceived failures in proof, the appellate court did not question the Commission's basic theory of antitrust liability, and other courts have expressly relied upon the legal framework that the Commission established in *Rambus*.¹⁸ In this respect, the FTC's case against Rambus has set an important appellate precedent that SSO patent ambush conduct can violate Section 2 monopolization standards, a precedent that will likely aid future government antitrust enforcement as well as private litigation efforts.

The Federal Circuit decision in *Qualcomm* is significant to be sure, but it is too early to tell whether it will lead to a more generalized broadening in the scope of relief available to defendants in patent suits involving patent ambush conduct. Among other things, the litigation outcome in *Qualcomm* needs to be viewed together with the district court's findings of fairly egregious litigation misconduct, which may have affected the courts' willingness to grant broad relief on Broadcom's implied waiver defense.¹⁹

Despite these caveats, Broadcom's victory is likely to prompt other defendants in patent infringement cases to assert and fully litigate traditional defenses and counterclaims, and seek broad relief from SSO patent ambush conduct. This in turn could affect the need for and value of gov-

ernment antitrust enforcement. The FTC and Department of Justice must allocate limited resources, and in doing so may decline to pursue antitrust investigations and cases if industry members who face patent infringement claims appear to have a meaningful prospect of obtaining industry-wide remedies by asserting traditional patent defenses and counterclaims, or even antitrust counterclaims.

The notion that this type of patent-related misconduct could in the future become the focus primarily of private, as opposed to government, litigation is not particularly surprising, nor is it cause for concern. The same is true today, for instance, with fraud on the patent office, another species of patent-related misconduct. Defendants in patent infringement cases often challenge such conduct by asserting a patent defense of inequitable conduct, as well as a “Walker Process” antitrust counterclaim based on the Supreme Court’s decision by that name.²⁰ Often, in fact, an alleged infringer will assert an inequitable conduct defense and a Walker Process counterclaim simultaneously. The antitrust agencies, on the other hand, very rarely bring cases based on Walker Process-type claims, likely owing to the maturity of the law and robust level of private enforcement in this area.

Both *Rambus* and *Qualcomm* involved similar fact patterns: a participant in a standards-setting organization allegedly failed to make required patent disclosures while a standard was being developed; the SSO issued a standard that gained widespread adoption in the industry; and the participant later made royalty demands when industry members lacked any realistic ability to discontinue reliance on the standard. The litigation history and published decisions in these cases significantly advanced the antitrust and patent law doctrines used to challenge such conduct, and educated SSOs on how to refine and enforce their patent disclosure policies.

These advances may reduce the need for government antitrust enforcement against the “classic” form of SSO patent ambush conduct at issue in both cases, but this fact pattern is only one variant of conduct by patent holders that threatens competition in industries with active standards programs. The focus of government antitrust enforcement may and perhaps should shift to other conduct for which patent and antitrust doctrines are less developed, and the availability of broad private remedies may be in question.²¹

Conclusion

Both government and private antitrust enforcement have significant roles to play in ensuring that standard-setting activities serve their intended purposes and are not undermined by anticompetitive attempts to extract private gain from an enterprise that would otherwise serve to promote the mutual interests of relevant industry participants and consumers. The FTC’s loss on appeal in the *Rambus* case does nothing to call this proposition into question. Indeed, despite the ultimate outcome, *Rambus* established important precedent that will aid future antitrust enforcement actions. The Federal Circuit decision in *Qualcomm v. Broadcom*, on the

other hand, suggests that patent law defenses may also serve as an increasingly important protection against market-wide harm resulting from improper conduct in this setting. In this area, as elsewhere, patent and antitrust law need not be viewed as mutually exclusive. Where the two bodies of law intersect, the existence of complementary patent and antitrust law remedies is a natural and welcome development. ■

¹ See *Dell Computer Corp.*, FTC No. C-3658, 1996 FTC LEXIS 291 (Decision and Order) (May 20, 1996).

² See M. Sean Royall & Adam J. Di Vincenzo, *The FTC’s N-Data Consent Order: A Missed Opportunity to Clarify Antitrust in Standard Setting*, ANTITRUST, Summer 2008, at 83 (discussing Dell consent order).

³ See M. Sean Royall, *The Role of Antitrust in Policing Unilateral Abuses to Standard-Setting Processes*, ANTITRUST, Spring 2004, at 44.

⁴ See *Rambus, Inc. v. Infineon Techs. AG*, 164 F. Supp. 2d 743, 772 (E.D. Va. 2001).

⁵ See Statement of M. Sean Royall, Deputy Director FTC Bureau of Competition and Trial Counsel, In the Matter of *Rambus Inc.* (Jan. 29, 2003), available at <http://www.ftc.gov/opa/2003/01/royallstatement.shtm>.

⁶ Opinion of the Commission, In the Matter of *Rambus Inc.*, FTC Docket No. 9302, at 71 (Aug. 2, 2006) (Rambus Commission Opinion), available at <http://www.ftc.gov/os/adjpro/d9302/060802commissionopinion.pdf>.

⁷ *Id.* at 98.

⁸ *Id.*

⁹ Opinion of the Commission on Remedy, *Rambus Inc.*, FTC Docket No. 9302, at 28 (Feb. 5, 2007), available at <http://www.ftc.gov/os/adjpro/d9302/070205opinion.pdf>.

¹⁰ *Rambus Commission Opinion*, *supra* note 6, at 3.

¹¹ *Broadcom Corp. v. Qualcomm Inc.*, 501 F.3d 297, 311 (3d Cir. 2007). This decision dealt with a portion of the broader Qualcomm/Broadcom legal battle unrelated to the Federal Circuit’s Qualcomm patent decision discussed in this article. The Third Circuit’s antitrust case involved different (and unrelated) patents, a different SSO, and entirely separate allegations of wrongdoing than the case reviewed by the Federal Circuit in *Qualcomm*.

¹² *Rambus Inc. v. FTC*, 522 F.3d 456, 466–67 (D.C. Cir. 2008), *cert. denied*, 129 S. Ct. 1318 (2009).

¹³ *Rambus*, 522 F.3d at 466–67.

¹⁴ *Qualcomm Inc. v. Broadcom Corp.*, 2007 U.S. Dist. LEXIS 28211, at *26–*27, *41 (S.D. Cal. Mar. 21, 2007).

¹⁵ *Id.* at *61–*63.

¹⁶ *Qualcomm Inc. v. Broadcom Corp.*, 548 F.3d 1004, 1026 (Fed. Cir. 2008).

¹⁷ *Qualcomm*, 2007 U.S. Dist. LEXIS 28211, at *32–*33.

¹⁸ See *Qualcomm*, 501 F.3d at 312, 315 (relying on Commission decision in *Rambus* in holding that deception in a “consensus-oriented” standard-setting environment could “constitute actionable anticompetitive conduct”).

¹⁹ *Qualcomm Inc. v. Broadcom Corp.*, 539 F. Supp. 2d 1214, 1227–28, 1234–35, 1239 (S.D. Cal. 2007) (finding that Qualcomm or its counsel engaged in “aggravated litigation abuse,” “an organized program of litigation misconduct and concealment,” and “gross” misconduct).

²⁰ *Walker Process Equip., Inc. v. Food Mach. & Chem. Corp.*, 382 U.S. 172 (1965).

²¹ One example is the FTC’s recent enforcement action involving Negotiated Data Solutions LLC. The core allegation there was that subsequent patent assignees reneged on the original patent holder’s express commitment to the SSO that it would license its patents to any user of the relevant standards for a one-time royalty of \$1,000. Unlike *Rambus*, there were no allegations that the original patent holder or its assignees engaged in fraudulent or deceptive conduct. See Analysis of Proposed Consent Order to Aid Public Comment, In the Matter of Negotiated Data Solutions LLC (N-Data), FTC File No. 051-0094, at 1 (Jan. 23, 2008), available at <http://www.ftc.gov/os/caselist/0510094/080122analysis.pdf>. See generally Royall & Di Vincenzo, *supra* note 2.