The FTC’s *N-Data* Consent Order: A Missed Opportunity To Clarify Antitrust in Standard Setting

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One of the signal achievements of the Federal Trade Commission during the George W. Bush years has been to clarify how, and to what extent, antitrust laws—specifically, Section 2 of the Sherman Act—should apply when a patent holder, participating in an open standard-setting process, subverts the process through deception and later exploits a patent monopoly over markets that have become deeply reliant upon the relevant standards.

At the commencement of the current Bush Administration, the only FTC precedent bearing on this issue was a 1996 consent order with Dell Computer Company (now Dell Inc.), which was hardly a model of clarity. The *Dell* consent order was not predicated on the Sherman Act, but rather on the “unfair methods of competition” prong of Section 5 of the FTC Act. In a rather pointed dissent, then-Commissioner Mary Azcuenaga noted a litany of deficiencies in the majority’s approach, including the failure to allege “that Dell acquired market power” or engaged in any “knowing or intentional misrepresentation.” While the majority, in Commissioner Azcuenaga’s view, took pains to suggest it was acting upon “traditional” legal principles, in reality it failed to “articulate a violation . . . under any established theory of law.” In short, she assessed that rather than bringing clarity to the law the Commission had simply “create[d] more confusion.”

Confusion is an accurate descriptor of the state of the law in this area when the present Bush Administration assumed leadership at the FTC in 2001. But since that time the Commission has done a great deal to bring about sensible legal standards. Most notably, the Commission brought two cases, *Rambus* and *Unocal*, that purposefully achieved what the *Dell* consent order so clearly failed to do. Both cases dealt with the same basic concern—the use of deception as a means to secure standardization of a patented technology and to subsequently monopolize captive technology markets—and both cases were rooted firmly in Sherman Act case law. In each case, the Commission’s allegations involved a collaborative industry standard-setting process charged with defining open standards of critical importance to the affected industries. According to the Commission, respondents Rambus and Unocal, while participating in these efforts, allegedly misled their respective standard-setting bodies regarding the extent to which they possessed patent rights covering the technologies being considered for inclusion in the standards. Other standard-setting participants relied on the respondents’ false patent-related representations and/or conscious failures to make required, good-faith disclosures concerning the relevant patents. Despite the existence of suitable alternatives to the respondents’ patented technologies, the standard-setting bodies adopted these technologies into the new standard. The existence of respondents’ patents covering the standardized technology did not become known until the industry and the public had become “locked in” to using these technologies. After the industry became dependent on their respective technologies, Unocal and Rambus exploited their positions by demanding monopolistic royalties from users of the relevant standards.

The Commission’s findings and subsequent court decisions affirm that this alleged conduct could constitute unlawful monopolization in violation of Section 2. *Unocal* was settled in conjunction with Chevron’s 2005 acquisition of *Unocal*; the *Rambus* case resulted in a unanimous finding of liability by the Commission. In *Broadcom Corp. v. Qualcomm Inc.* the Third Circuit cited the FTC’s “landmark” *Rambus* decision in finding that allegations of similarly deceitful conduct constituted a violation of Section 2. And although the Commission’s *Rambus* decision was recently overturned by the D.C. Circuit, the court of appeals recognized that conduct involving deception of a standard-setting body could be actionable under Section 2. In the D.C. Circuit’s view, the Commission failed to prove that the relevant standard-setting body—JEDEC—would have selected alternative technologies for the standard had Rambus disclosed the existence of its patents during the standard-setting process. This shortcoming in the Commission’s case was, according to the D.C. Circuit, fatal to its Section 2 claim against Rambus. However, the D.C. Circuit expressly acknowledged that deception of a standard-setting body that leads to monopoly power may be unlawful under Section 2.
In light of these cases, it is now clear that deceptive acts designed to subvert a standard-setting process with the ultimate goal of transforming a benevolent industry standard into a private monopoly can lead to antitrust liability, not merely under Section 5 of the FTC Act, but also under Section 2 of the Sherman Act. This represents tremendous progress compared to the muddled state of the law in the wake of the Dell consent order. Yet, outside of the narrow Rambus/Unocal fact pattern, confusion still reigns, as is evident from the FTC’s proposed consent order with Negotiated Data Solutions LLC (N-Data).12

While the N-Data case has many parallels to Rambus and Unocal, the facts diverge in some important respects. N-Data itself—unlike Rambus and Unocal—was not a participant in the underlying standard-setting process, which involved the development of a second generation “Ethernet” protocol by an IEEE subcommittee. Nor is N-Data or any other entity accused of engaging in deception or other bad acts while the relevant standards were being adopted. On the contrary, National Semiconductor (National), which held patents covering a technology known as “NWay,” openly disclosed its patent interests to IEEE and agreed in writing to license those patents for a token $1,000 royalty in the event that NWay was incorporated into IEEE’s new “Fast Ethernet” standards, as it was in 1995.

These facts taken alone raise no antitrust concerns. But in 1998 National assigned the NWay patents to Vertical Networks, Inc. (Vertical), a corporate spin-off run by former National employees. For four years after taking ownership of the NWay patents, Vertical did nothing to enforce them. Then, in 2002, after Fast Ethernet and a successor standard known as “Gigabit Ethernet” had clearly taken root within the global networking marketplace, Vertical sprang into action. In a March 2002 letter to IEEE, Vertical announced its intention to “supersede” National’s prior $1,000 licensing commitment and to begin seeking licenses on Vertical’s then “current royalty rates,” which were in the neighborhood of ten cents per Ethernet port on every hub, router, switch, modem, or other device operating within a Fast Ethernet or Gigabit Ethernet network. Given the billions of dollars of Fast Ethernet equipment already in place at this time, and the rate at which new equipment was being manufactured and installed, Vertical’s royalty demands had enormous implications. Vertical quickly reinforced its words by instituting patent enforcement suits. Shortly after settling one of these suits in December 2003, Vertical announced that, in order to “further its intellectual property initiatives,” it would be assigning the NWay patents to N-Data, a company controlled by Vertical’s outside patent counsel. N-Data thereafter continued to demand exorbitant royalties from network device manufacturers while at the same time disclaiming any obligation to respect National’s express agreement to license the NWay technology for a flat $1,000 fee.

In a January 2008 decision joined by three of the five participating Commissioners, the FTC concluded that N-Data, the present owner of the NWay patents, had violated both the “unfair methods of competition” and “unfair . . . acts or practices” prongs of Section 5 of the FTC Act.16 The Commission’s proposed consent order addresses these violations by, among other things, requiring that N-Data “must offer a paid-up, royalty-free license” to the NWay patents “in exchange for a one-time fee of $1,000.”17

We find no fault with the relief proposed by the Commission majority, nor do we question the appropriateness of the majority’s reliance upon Section 5. The N-Data case was settled without litigation, indicating that the Commission and N-Data may have reached a practical compromise that would avoid further investigation and litigation while, at the same time, putting an immediate end to N-Data’s anticompetitive conduct. The Commissioners in the majority may not have recognized a need to impose an additional ground for liability based on the Sherman Act given that the remedy available under Section 5 was, in the majority’s view, sufficient to terminate the harmful conduct.18

In our view, however, by failing to rely at least in part upon Sherman Act principles in support of its proposed order, the Commission has missed a significant opportunity to further clarify how traditional antitrust law principles apply in this immensely important commercial setting. In marked contrast to the Rambus and Unocal cases, both of which were centered firmly on Section 2 monopolization theories, the N-Data majority eschews any hint of reliance on the Sherman Act. The majority also suggests that limiting its decision to “stand-alone violations of Section 5” has the virtue of avoiding any potential impact on “well-founded” private antitrust cases.19

To our eyes, this is all somewhat peculiar, and a bit distressing. One of the key reasons why the Commission’s Rambus and Unocal cases are so important—by contrast with the Dell consent order, for instance—is that they significantly contributed to the development of Sherman Act jurisprudence and thereby created meaningful guidance for federal courts to follow in private litigation.20 Far from shifting away from this role, the FTC, in our view, should embrace it, in part for very practical reasons. The FTC lacks the resources to police every instance in which there is a bona fide concern about anticompetitive exploitation of a standard-setting process, and there is no reason why the FTC should feel compelled to intervene in each such case. The Commission’s highest priority in this area should be to address novel and complex fact patterns that pose challenging questions from the standpoint of existing law, particularly where those fact patterns are likely to recur and the potential for consumer harm is substantial. And where possible, in our view, the Commission should affirmatively seek to act based on its Sherman Act authority.

Had it chosen to address the Section 2 issues in N-Data, the Commission would have faced two key questions: (1) whether N-Data’s conduct can properly be deemed “exclusionary,” and if so, (2) whether that conduct led to the creation of monopoly power. While these questions do pose complex
doctrinal questions, for reasons discussed below we believe both questions can be answered affirmatively. By proceeding down this path, the Commission would be creating a precedent of far greater significance. Standard-setting activities depend critically upon the ability of participants to have confidence that ex ante licensing assurances will be respected. The N-Data case provided the Commission with an ideal opportunity to clarify how antitrust law will apply when firms opportunistically repudiate such assurances to achieve a monopoly.

N-Data’s Conduct Is “Exclusionary” Under Established Section 2 Principles

The course of conduct at issue in N-Data is properly viewed as “exclusionary” under widely accepted Section 2 principles. There have been many recent efforts to formulate a legal standard that provides clear analytical basis for distinguishing harmful exclusionary conduct from aggressive competition. This has not proven to be easy, but most observers would agree on the guiding principle articulated by Professors Areeda and Turner, which is frequently cited in Section 2 cases: “Exclusionary’ conduct is conduct, other than competition on the merits, that reasonably appears capable of making a significant contribution to creating or maintaining monopoly power.” Others have proposed alternatives, including definitions of exclusionary conduct that focus on the effect of the conduct in excluding equally efficient competitors, raising rivals’ costs, or the sacrifice of short-term profits by the actor. In virtually all of these tests, the principal line of demarcation is between conduct that imposes costs on competitors, the principal line of demarcation is between conduct that enhances the actor’s own efficiency, as measured in reduced prices or increased output, and conduct that serves only to impose costs on competitors.

Applying this straightforward definition, the conduct at issue in N-Data was clearly exclusionary. The openness of the IEEE 802.3 standards created a market for Ethernet technology in which inter-firm competition was vibrant and innovative new concepts and products were introduced. Vertical and N-Data contributed nothing to the development of the Fast Ethernet standards or to the subsequent success of the standards in allowing the creation of fast and reliable communications among wired networking devices. Instead, the conduct in this case operated solely to transfer wealth to Vertical and N-Data in the form of exorbitant royalty payments, with no offsetting procompetitive benefit. The IEEE attempted to prevent patent hold-up by requiring patentees to offer reasonable licensing terms if their patents were enshrined as the industry standard. The participants in the Fast Ethernet standard-setting process, including National, complied with these procedures. Those that relied on the IEEE’s Fast Ethernet standards had no reason to contemplate that manufacturers or users of compliant devices would ever be faced with crippling royalty demands. National’s express assurances and Vertical’s years of silence gave the IEEE and the Ethernet industry the reasonable impression that such a scenario would never occur.

Vertical acquired the NWay patents from National in 1998 with full knowledge of National’s licensing assurance. Yet Vertical remained silent for four years as the Fast Ethernet standards became ever more fixed and indispensable in the worldwide networking industry. Indeed, the number of Ethernet LAN connections, most of which incorporate NWay autonegotiation, doubled between 1998 and 2002. Vertical first revealed its plan to exercise control over the Fast Ethernet standards in 2002 when it sent a letter to the IEEE purporting to “revoke” National’s original licensing commitment—some eight years after it was given. By waiting to spring its patent trap, Vertical maximized its leverage in extracting royalties from the Ethernet equipment industry.

The IEEE’s reasonable reliance on National’s licensing offer makes the actions of Vertical and N-Data fundamentally different from a patent holder that is seeking to enforce its rights to prevent infringement. This is because National had knowingly and irrevocably waived its (and any assignees’) rights to seek royalties over and above $1,000. In her dissenting statement, Chairman Majoras noted that IEEE rules in effect at the time National made its assurance did not explicitly require that patent assurances be irrevocable. While this may be true, it is also beyond dispute that the IEEE and its members reasonably understood National’s commitment to be both unconditional and irrevocable.

If National’s assurance letter had included any language suggesting that National reserved the right to amend or later withdraw its commitment, the letter plainly would have been rejected by the IEEE’s Review Committee or Patent Committee. As a matter of common sense, such ex ante licensing commitments must be irrevocable because any other rule would create an unacceptable risk of gamesmanship and ex post hold up after the standard gains acceptance.

But even assuming Vertical’s and N-Data’s attempts to revoke National’s commitment did not violate the letter of the IEEE’s rules, this conduct was still exclusionary. Courts have made it clear that “literal compliance” with a standard-setting organization’s rules is not a defense to Section 2 liability. For example, in American Society of Mechanical Engineers, Inc. v. Hydrolevel Corp, the Supreme Court upheld liability even though there was no proof that a violation of the standard-setting organization’s rules had occurred. As explained above, notwithstanding the IEEE’s rules, there was a widespread and reasonable understanding among those that relied on the IEEE Ethernet standards that National’s commitment was irrevocable.

Moreover, Vertical and N-Data were not entitled to seek royalties over and above $1,000 per manufacturer because, under settled patent law, “[a]n assignee obtains only the right, title and interest of his assignor at the time of his assignment, no more.” Vertical and N-Data acquired the NWay patents with full knowledge of National’s promise. Nevertheless, Vertical and N-Data sought to compel the pay-
ment of royalties far greater than $1,000 per user. These additional royalty demands cannot be justified as protecting rewards for National’s invention or future incentives to innovate. As the Commission recognized, National was sufficiently motivated to make its irrevocable commitment because it stood to benefit financially from the success of the Fast Ethernet standards through sales of its own Ethernet equipment. Further compensation in the form of royalties above what National committed to would simply serve as a windfall for Vertical and N-Data.

In this regard, Vertical’s and N-Data’s conduct constitutes a textbook example of what others have labeled “cheap exclusion.” The cost to Vertical and N-Data of unilaterally abandoning the prior licensing assurance covering Fast Ethernet was minimal. At the same time, acquiring patents in order to knowingly breach a specific licensing commitment made to a standards organization “cannot be explained in terms of the defendant’s effort to increase output or improve product quality, innovation, or service.” Particularly in the context of an established open standard, such as Fast Ethernet, this type of cheap exclusionary behavior is at once both easy to accomplish and capable of inflicting substantial harm to consumers in the form of royalty payments that greatly exceed the competitive royalty reflected in National’s ex ante commitment. Such conduct “can have no claim to legitimacy under an antitrust regime.”

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The conduct in this case can also be characterized as opportunistic. Former DOJ chief economist Carl Shapiro has explained that, particularly with respect to standards, “a firm might obtain a dominant position based in part on certain ‘open’ policies that induce reliance by complementary firms, and then later exploit that position by offering less favorable interconnection terms or by refusing to interconnect with them altogether.” Professor Shapiro concludes that “[w]hen the effects of opportunism are market-wide, antitrust concerns arise.” This case presents exactly this type of opportunistic scenario. The “open” promise made by National with respect to NWay technology was essential to its incorporation into the Fast Ethernet standards and induced reasonable reliance by the IEEE. After Fast Ethernet became a dominant industry standard, Vertical and N-Data capitalized on this opportunity to extort excessive royalties on a market-wide basis.

The Supreme Court has long held that anticompetitive manipulation of a standard-setting process to protect or obtain market power may violate the Sherman Act. In both Hydrolevel and Allied Tube & Conduit Corp. v. Indian Head, Inc., the Supreme Court applied the Sherman Act to efforts to use a standard-setting process to achieve or maintain market power to the detriment of consumers. Although these cases were brought under Section 1 of the Sherman Act, they illustrate the Court’s broader recognition that “a standard-setting organization . . . can be rife with opportunities for anticompetitive activity.” Significantly, the Court held that a defendant’s subversion of the standard-setting process could be anticompetitive even if it did not involve deception or fraud. For example, the plaintiff in Allied Tube sought to amend a private SSO’s standards so that its own brand of polyvinylchloride (PVC) conduit could be used by builders, which would enable the plaintiff’s conduit to compete with the defendant’s steel conduit. In response, the defendant and other steel conduit makers recruited new members in an effort to garner enough votes to reject this new standard. This conduct was not deceptive—indeed, the defendant openly recruited other members to find and register new members in advance of the vote on the PVC amendment. Nevertheless, both the Second Circuit and the Supreme Court upheld the jury’s finding that the defendant “did ‘subvert’ the consensus standard-making process,” thereby violating the Sherman Act.

Here, while there is no question that Vertical and N-Data acted intentionally, they did not defraud the IEEE or its members. Instead of a lengthy campaign of deception, Vertical and N-Data took the more expedient approach of (1) acquiring intellectual property rights that are essential to practice a popular industry standard, (2) intentionally reneging on an express ex ante licensing commitment made for the purpose of inducing reliance by the standard-setting organization, and (3) seeking to hold up industries reliant on the standard by demanding monopoly rents and threatening infringement suits. These actions subverted the Fast Ethernet standards just as surely as if National’s original licensing promise had been a flat-out lie. Consistent with the Court’s rulings in Allied Tube and Hydrolevel, this conduct is anticompetitive and exclusionary because it increased the cost of NWay and potentially reduced output of Ethernet products incorporating the IEEE standards.

The conduct of Vertical and N-Data also parallels other recognized forms of exclusionary conduct, such as refusals to deal—specifically, a refusal to respect commercial licensing terms that were previously agreed to by National and relied upon by IEEE and the many firms that have implemented the organization’s Fast Ethernet standards. In Aspen Skiing Co. v. Aspen Highlands Skiing Co., the defendant ski resort had for many years participated in offering an “all Aspen” ski ticket that was valid at the defendant’s three mountains and one other resort operated by the plaintiff. However, the defendant subsequently terminated the joint ticketing arrangement and refused multiple offers to renew cooperation. No procompetitive justification was offered for the termination. On the contrary, it appeared that the defendant had acted against its short-term economic interests in refusing to offer an all-
resort ski ticket. Under these circumstances, the Court found that the conduct had harmed competition and therefore upheld a verdict of liability under Section 2.

The conduct at issue in \textit{N-Data} follows a similar pattern. For many years after the adoption of the Fast Ethernet standards, National and its successor Vertical made no attempt to collect any royalties for use of the NWay technology, not even the nominal royalties referenced in National’s letter. Yet Vertical and N-Data reversed this established course of dealing by purportedly revoking National’s licensing commitment. Like the conduct in \textit{Aspen Skiing}, the only apparent motivation for this abrupt change of course by Vertical and N-Data was that it allowed them to exert monopoly power over the Fast Ethernet standards. The effective termination of this prior course of dealing has no procompetitive justification and deserves condemnation under Section 2.

The conduct of Vertical and N-Data can also be viewed as an intentional breach of a binding commitment made by National regarding the licensing of NWay technology. Similar conduct has been found to violate Section 2 when it occurs as part of a scheme to acquire monopoly power. For example, in \textit{Hewlett-Packard Co. v. Boston Scientific Corp.}, the plaintiff alleged that, in order to secure Commission approval of a proposed transaction, the defendant made express and binding commitments in a consent order to take certain actions to facilitate post-merger entry and competition. However, after the merger was completed the defendant failed to live up to these commitments. By doing so, the defendant acquired monopoly power that it would not have possessed had it adhered to the terms of the consent order. The court held that such allegations, if proven, would support a claim under Section 2 of the Sherman Act. In another case—\textit{Biovail Corp. International v. Hoechst Aktiengesellschaft}—the court reached the same conclusion when confronted with a similar fact pattern.

Like the defendants in \textit{Boston Scientific} and \textit{Biovail}, National made an ex ante commitment that restrained its monopoly power, which was followed by subsequent breach of these commitments by National’s assignees. The subsequent breach of these binding commitments allowed Vertical and N-Data to acquire monopoly power. In this regard, the conduct in \textit{N-Data} mirrors this recognized category of exclusionary conduct.

Finally, the opportunistic nature of the conduct in this case resembles the conduct that the Supreme Court found to be exclusionary in \textit{Eastman Kodak Co. v. Image Technical Services, Inc.}. In that case, Kodak altered its policies to permit only Kodak-licensed service agents to purchase replacement parts for Kodak copiers. Because they were unable to obtain spare parts as a result of the new policy, this policy change effectively eliminated competition from non-Kodak copier repair services. Kodak’s ex post conduct was found to be exclusionary because it foreclosed competition in copier repair services through a policy change that could not have been reasonably foreseen by Kodak’s copier customers. Kodak’s customers, like those that relied on IEEE standards incorporating NWay, could not avoid Kodak’s new policy because they were “locked in” by their substantial investments in purchasing Kodak-brand copiers. The Court held that Kodak’s opportunistic about-face after consumers had made significant and irreversible investments in its copiers could be a basis for a finding that Kodak engaged in exclusionary conduct under Section 2. Likewise, Vertical’s and N-Data’s unforeseeable breach of National’s ex ante licensing commitment can and should be viewed as exclusionary.

\textbf{N-Data’s Exclusionary Conduct Allowed It to Acquire Monopoly Power}

The evidence before the FTC showed a clear causal link between N-Data’s exclusionary course of conduct and its acquisition of monopoly power. Critically, N-Data’s monopoly power resulted from Vertical’s and N-Data’s actions in reneging on National’s licensing commitment, a commitment made before the IEEE adopted its Ethernet standards at a time when NWay faced competition from alternative technologies. The NWay patents, even after they were standardized and industry lock in occurred, did not confer monopoly power on the NWay patent holder. That is, due to National’s commitment, the NWay patent holder was restrained from charging royalties greater than $1,000 or refusing to license the NWay patents altogether. It was only when the restraint imposed by National’s commitment was repudiated that Vertical and N-Data acquired monopoly power—i.e., the ability to collect royalties above $1,000, a level inherently reflecting competitive conditions in the relevant technology market.

As courts have long recognized, monopoly power is fundamentally “the power to control prices or exclude competition.” Accordingly, the Supreme Court has long recognized that “the material consideration in determining whether a monopoly exists is not that prices are raised and that competition actually is excluded but that power exists to raise prices or to exclude competition when it is desired to do so.” Improper acquisition of monopoly power may violate Section 2 even if the power has not been exercised to its full potential. Evidence that a firm has actually charged a supracompetitive price or excluded competitors is typically deemed to constitute direct proof of monopoly power in a relevant market.

With this case law in mind, Vertical’s and N-Data’s demonstrated ability to extract supracompetitive royalties from NWay users provides clear evidence that (1) NWay technology used in Ethernet equipment constitutes a relevant market and (2) Vertical and N-Data acquired monopoly power in this relevant market through their exclusionary course of conduct.

In both \textit{Rambus} and \textit{Unocal}, the Commission concluded that the standardized technology at issue in each case constituted a relevant market. Likewise, here the relevant market should be defined to include the NWay autonegotiation
technology used in IEEE 802.3-compliant Ethernet devices. Once the Fast Ethernet standards became entrenched in the mid-to-late 1990s, the industry was locked in to using NWay and there were no viable alternative technologies. By 2002, even the threat of significant increases in NWay royalties imposed by Vertical and N-Data did not cause the Ethernet industry to switch to another autonegotiation technology.

Vertical’s and N-Data’s demonstrated ability to extract supra-competitive royalties also proves that they acquired monopoly power in the relevant market. In arguing that Unocal had acquired monopoly power by subverting the CARB standard-setting process, FTC Complaint Counsel asserted that:

[D]irect evidence of monopoly power can be measured by comparing the actual royalty rates to a competitive benchmark. The proper competitive benchmark is the royalty-free representation that Unocal made to CARB. Since Unocal is seeking royalties significantly above that level, and has received or is likely to receive these royalties, Unocal has monopoly power. Supra-competitive royalty prices are direct evidence of Unocal’s monopoly power.

The Commission in Unocal further observed that “[m]arket power and competitive harm might be established through the course of dealing among Unocal and third parties, as reflected by Unocal’s licensing activities and the responses of third parties to Unocal’s threats and suits.”

In similar fashion, the evidence in this case shows that Vertical and N-Data had acquired measurable market power. National committed to a $1,000 license fee when NWay faced viable competition to satisfy the autonegotiation needs of the Fast Ethernet standards, which clearly demonstrating that a one-time $1,000 royalty was the competitive price for use of the NWay technology. Years later, Vertical and N-Data rejected offers to pay this $1,000 royalty and instead demanded that users of NWay accept a license at a rate (in some cases) of ten cents per autonegotiation port, amounting to a royalty rate of tens of millions of dollars. And Vertical and N-Data followed up on these threats by filing patent infringement suits against a number of Ethernet equipment manufacturers. The evidence before the Commission indicated that users acceded to these demands by agreeing to pay Vertical and N-Data royalties “far in excess of $1,000.”

It is important to note that Vertical and N-Data acquired their monopoly power as a result of an exclusionary course of conduct, not through the mere possession of patents covering a standardized technology. Although standardization made NWay the only autonegotiation option practically available to Ethernet equipment manufacturers and users, that standardization came with a specific price—National’s agreement to forfeit the monopoly power that the Fast Ethernet standards might have conferred upon the holder of the NWay patents. In light of that commitment, National possessed neither the power to control price nor the ability to exclude competition. On the contrary, it was bound to license all comers for a token royalty amount. This commitment was inherited by Vertical and N-Data, as assignees of the NWay patents, meaning that they too lacked monopoly power—that is, until they began engaging in exclusionary conduct designed to circumvent National’s commitments to the IEEE.

This view of the facts is consistent with the relevant case law, which, as noted above, emphasizes that a firm that has a high (even 100 percent) market share does not possess monopoly power if it is unable to control price or exclude competition. Courts have frequently held that market shares are irrelevant and can even be misleading where more direct evidence of a firm’s inability to charge supra-competitive prices or exclude competitors is available. Direct evidence concerning the ability to raise price is particularly salient. As noted by Judge Easterbrook, “When there are better ways to estimate market power, the court should use them.” Direct evidence concerning the ability to raise price is particularly salient. As noted by Judge Easterbrook, “When there are better ways to estimate market power, the court should use them.” The Supreme Court did just that in United States v. General Dynamics Corp., holding that the defendant’s high market share did not alone prove market power considering that the defendant’s pricing discretion was constrained by long-term contractual commitments.

As explained above, such cases as Boston Scientific and Biovail demonstrate that, where firms violate commitments designed to avert monopoly power, such conduct may be subject to challenge under the Sherman Act. The facts presented in N-Data mirror the Third Circuit’s analysis in Broadcom in this respect. In Broadcom, the Third Circuit held that Section 2 applied where the defendant allegedly “induced” a number of SSOs to adopt its patented technology by committing to license its technology on fair, reasonable, and non-discriminatory (FRAND) terms but later breached its commitment after the SSOs standardized its patented technology. The district court held that “it is the [SSO]’s decision to set a standard,” not the defendant’s conduct, which led to the exclusion of competing technologies and thereby conferred monopoly power on the defendant.

The Third Circuit reversed, stating that the district court erred in failing to recognize that the defendant’s ex ante licensing assurance “was an essential part of its competitive effort to win inclusion of its patented technology” in the standard. In other words, the defendant’s assurance was an “important safeguard against monopoly power” because it restrained the defendant’s ability to charge supra-competitive prices after its technology was standardized. Indeed, the entire purpose of demanding ex ante licensing commitments in a standard-setting context is to moderate or eliminate the ability of a patent owner to convert the market power of the standard into a private monopoly. In Broadcom, it was the defendant’s conduct in making a promise to the SSO and later breaking this promise, not the standardization of the defendant’s technology, that was the true source of the defendant’s monopoly power.

Thus, where a patentee makes an ex ante licensing commitment to an SSO that constrains its ability to charge ex

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post monopoly-level royalties, monopoly is not a “natural consequence of the standard setting process.” Even though NWay faces no competition in the relevant market for autonegotiation technology (put differently, it has a 100 percent share), this alone does not mean that National or the subsequent assignees of the NWay patents possessed monopoly power. National voluntarily ceded its ability to exploit any market power attributable to its patents when it made its ex ante commitment to license NWay for a nominal amount. As a result, when Vertical and N-Data acquired the NWay patents from National by assignment, they possessed no monopoly power. In 2002, Vertical and N-Data disavowed National’s prior licensing assurances and refused to accept royalties tendered in accordance such assurances. Thereafter, manufacturers of Ethernet equipment became victims of opportunism occurring because of an ex post hold-up problem. Only after engaging in this exclusionary course of conduct did Vertical, and later N-Data, begin to acquire and exercise monopoly power.

In short, both prongs of monopolization—exclusionary conduct that allowed the acquisition of monopoly power—are presented by the facts in N-Data. The Commission therefore had sufficient legal grounds to bring a Section 2 claim in this case.

**N-Data’s Conduct Is an Appropriate Target for Antitrust Enforcement**

Because it harmed consumers and competition on a marketwide basis without any countervailing procompetitive justification, Vertical’s and N-Data’s conversion of an open standard into a private monopoly is precisely the sort of conduct the Sherman Act was designed to proscribe. The Commission expressly found that this conduct “had an adverse impact on prices for autonegotiation technology” and threatened to reduce output of Ethernet products compliant with the IEEE’s standards. According to data cited by the Commission, the NWay patents covered technology incorporated in at least 70 percent of worldwide Ethernet ports. Given the ubiquity of the NWay autonegotiation technology, Vertical and N-Data believed they could extract tens of millions of dollars in annual royalty payments from Ethernet equipment manufacturers. In contrast, had this exclusionary conduct never occurred, each Ethernet equipment manufacturer would have been required to pay only a nominal amount—a one-time $1,000 royalty—for its use of NWay.

While the Commission stepped in to prevent the immediate consumer harm that would have occurred, the Commission’s limited holding under Section 5 of the FTC Act means this sort of conduct will continue to threaten standard-setting efforts beyond IEEE 802.3 wired Ethernet. As the Commission recognized, its findings under Section 5 may not support a private Sherman Act claim in federal court. Absent private enforcement, the Commission, with its limited enforcement resources, may not be capable of detecting and stopping all future instances of this conduct. And federal courts would lack the Commission’s expert guidance on whether similar conduct violates the antitrust laws. As a result, the Commission’s N-Data precedent may not sufficiently deter holders of patents covering standardized technologies from emulating N-Data’s conduct.

Worse yet, by failing to condemn N-Data’s conduct under Section 2, the Commission is sending a potentially dangerous signal, one that could embolden other firms whose technologies are enshrined in industry standards to capture monopoly power by abandoning ex ante licensing commitments. The recurrence of such behavior could be hugely disruptive within the standard-setting community and the many markets that revolve around open industry standards. As the Commission observed, concerns about the reliability of ex ante licensing assurances like National’s could make standards less reliable and cause standard-setting bodies to avoid patented technologies altogether. By failing to condemn this conduct as a violation of the Sherman Act, the Commission risks the devaluation of standards across many industries, thereby hampering the introduction of useful new products and technologies.

The facts of this case presented a unique opportunity for the Commission to protect procompetitive standard-setting efforts while building and further clarifying the law established by its recent precedents in this area. In Rambus and Unocal, the alleged deception was deemed to be exclusionary conduct, and the respondents allegedly used that conduct as a wrongful means of acquiring monopoly power. At the same time, the Commission recognized that other forms of exclusionary conduct were capable of distorting standard-setting processes and causing anticompetitive effects that would be actionable under the Sherman Act. In this regard, a Section 2 claim in N-Data would have been a natural extension of the Commission’s ongoing efforts to protect consumers against the varying forms of anticompetitive patent hold up that may occur in standard setting.

Where the fact pattern in N-Data differed from the Commission’s prior cases, those differences worked to reduce the complexity of the case. In Rambus, for example, the Commission alleged that JEDEC reasonably inferred from Rambus’s silence that its technology was not implicated by the memory standards under consideration by JEDEC. However, Rambus argued that it had violated no specific JEDEC rule in failing to disclose its patent applications and
that it had no particular duty to inform other members of its intellectual property rights. These issues became a source of tremendous complexity in the Rambus litigation. Likewise, the Commission's decision in Dell triggered widespread criticism because it could be interpreted to impose burdensome patent disclosure requirements on standard-setting participants, possibly deterring future participation in procompetitive standard-setting activities.\(^79\)

By comparison, the N-Data case was far simpler. Neither the terms of the IEEE's patent policy nor the duties placed on IEEE members were at issue. Whatever those requirements may have been, National chose to speak during the standard-setting process and made an express representation concerning its patent rights.\(^80\) Similarly, there was no question concerning National's intent to grant a license for a nominal fee on a nondiscriminatory basis. National's letter, as well as the recollections of participants in the process, make clear that there was a common understanding concerning the terms under which a license would be granted, including the fact that the offer to license was irrevocable.

The Commission's silence on Section 2 issues in N-Data, at a very minimum, creates uncertainty and doubt concerning the extent to which antitrust will protect against opportunistic conduct in this setting. The Commission could have dispelled such uncertainty by articulating a Section 2-based theory in this case.

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\(^5\) Id. at *22--*23.

\(^6\) Id. at *23.


\(^10\) 501 F.3d 297 (3d Cir. 2007).

\(^11\) Rambus Inc. v. FTC, No. 07-1086, 2008 WL 1795594, at *6 (D.C. Cir. Apr. 22, 2008) (“[i]f Rambus’s more complete disclosure would have caused JEDEC to adopt a different (open, non-proprietary) standard, then its failure to disclose harmed competition and would support a monopolization claim.”).

\(^12\) See Negotiated Data Solutions LLC, FTC No. 051 0094 (Decision and Order) (Jan. 23, 2008), http://www.ftc.gov/os/caselist/0510094/080122do.pdf.


\(^17\) Id. at 9.

\(^18\) Chairman Majoras and Commissioner Kovacic dissented. In her dissent, Chairman Majoras argued that the facts did not support antitrust liability because, in her view, N-Data's actions were consistent with IEEE policy and practice. *Negotiated Data Solutions*, supra note 12, at 2 (dissenting statement of Chairman Majoras). In addition, Chairman Majoras questioned whether N-Data enjoyed measurable market power through its NWay patents, concluding instead that NWay was an “optional technique” for Ethernet manufacturers. Id. In any event, the industry was partly to blame for N-Data’s position because no company had sought a license to use NWay prior to Vertical’s 2002 “revision” of National’s promise. Id. In short, Chair- man Majoras’s findings of fact were very different than the facts described by the Commission majority. Commissioner Kovacic, writing separately, concluded that N-Data’s conduct did not violate Section 5 of the FTC Act, but did not comment on whether Section 2 of the Sherman Act applied. Id. (dissenting statement ofComm’r Kovacic).

\(^19\) Id. at 6 n.8.

\(^20\) See, e.g., Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 311–12 (3d Cir. 2007) (relying upon the “extensive” Section 2 analysis in the Commission’s “landmark” Rambus decision, as well as Commission’s Unocal consent order, in support of the court’s “exclusionary conduct” determinations).

\(^21\) Judge Easterbrook’s formulation neatly captures the issue: “Aggressive, competitive conduct by any firm, even one with market power, is beneficial to consumers. Courts should prize and encourage it. Aggressive, exclu- sionary conduct is deleterious to consumers, and courts should condemn it. The big problem lies in this: competitive and exclusionary conduct look alike.” Frank H. Easterbrook, *When Is It Worthwhile to Use the Courts to Search for Exclusionary Conduct?*, 2003 COLUM. BUS. L. REV. 345, 346 (2003).

\(^22\) PHILLIP E. AREEDA & DONALD F. TURNER, ANTITRUST LAW ¶ 651f (2007).

\(^23\) RICHARD A. POSNER, ANTITRUST LAW 196 (2d ed. 2001).


\(^27\) See Fujitsu, supra note 14.

\(^28\) The fact that IEEE’s Web site has posted Vertical’s letter does not mean, as Chairman Majoras’s dissent suggests, that Vertical’s letter has somehow superseded National’s earlier commitment. On the contrary, the posting of Vertical’s letter was simply a ministerial act. It is hardly plausible, in any event, that the IEEE would abet a plan to reverse a long-standing license commitment covering technologies central to the organization’s Ethernet standards. See, e.g., Daniel G. Swanson, Evaluating Market Power in Technology Markets When Standards Are Selected in Which Private Parties Own Intellectual Property Rights 10 (Testimony Before the Joint Hearings of the U.S. Department of Justice and the Federal Trade Commission Regarding Competition and Intellectual Property Law and Policy in the Knowledge-Based Economy Apr. 18, 2002), http://www.ftc.gov/opp/intellect/020418danielswanson.pdf (“An SS0 has no legitimate reason to foster the creation or facilitate the exercise of ex post market power on the part of a licensor holding intellectual property rights in a standard adopted by the organiza- tion.”).

\(^29\) Negotiated Data Solutions, supra note 12, at 2 (dissenting statement of Chairman Majoras).

\(^30\) See Letter from Judith Gorman, Managing Director of Standards and Secretary, IEEE Standards Association Board of Governors, to Donald S.
Clark, Secretary of the Federal Trade Commission, at 4 (Feb. 26, 2008), available at http://www.ftc.gov/os/comments/negotiateddatasol/534241-00002.pdf (“In 2002 the IEEE-SA clarified its rules to make clear what was an implicit obligation that a patent assurance must be irrevocable.”).

31 See, e.g., Mark A. Lemley, Intellectual Property Rights and Standard-Setting Organizations, 90 CAL. L. REV. 1889, 1912 (2002) (“An SSO member that has agreed to license its IP rights covering a standard” on specified terms “has presumably committed to an ongoing license, not a temporary one.”); David J. Teece & Edward F. Sherry, Standards Setting and Antitrust, 87 MINN. L. REV. 1913, 1958 (2003) (A “commit[ment] to a royalty rate prior to the standard’s adoption would, presumably, be binding on the patent holder, in the sense that the patent holder could not increase the rate, though it could always agree to accept a lower royalty.”).


34 Id. at 572. The plaintiff in Hydrolevel alleged that an ASME committee official, who was employed by the plaintiff’s competitor, had issued an interpretation of an ASME standard in effect declaring the plaintiff’s product to be unsafe. Id. at 571–73. Although the plaintiff did not establish that a literal violation of ASME’s rules had occurred, the Supreme Court upheld liability, specifically noting the risks of anticompetitive harm that could arise from misuse of a standards process to further the anticompetitive ends of one member. Id. at 572.

35 See, e.g., Medtronic Ave Inc. v. Advanced Cardiovascular Sys., Inc., 247 F.3d 44, 60 (3d Cir. 2001) (citations omitted).

36 See Negotiated Data Solutions LLC, FTC No. 051 0094, Complaint ¶ 3 (Jan. 23, 2008).

37 See Susan A. Creighton et al., Cheap Exclusion, 72 ANTITRUST L.J. 975, 977 (2005).

38 Id. The conduct in Rambus is another prime example of “cheap” exclusion. The Commission concluded that Rambus had engaged in exclusionary conduct because “without reducing prices, forgoing sales, or even spending substantial funds beyond what it otherwise would have spent, Rambus’s conduct may have imposed substantial costs on rivals and contributed significantly to the creation of monopoly power.” Rambus, supra note 9, at *69.

39 Creighton et al., supra note 38, at 987.


41 Id. at 16.


45 See Analysis of Proposed Consent Order to Aid Public Comment, N-Data, supra note 16, at 4.


47 The Supreme Court’s commentary on Aspen Skiing in Verizon Communications Inc. v. Law Offices of Curtis V. Trinko, LLP, 540 U.S. 398 (2004), does not alter this analysis. The Trinko majority distinguished Aspen Skiing on the ground that the defendant in Trinko did not engage in a voluntary prior course of dealing with the plaintiff—rather, it was compelled by federal law to enter the relevant contract with the plaintiff in the first instance. Id. at 409–10. The statutory compulsion that motivated the original contract undermined the argument that the defendant had ended a profitable and voluntary course of dealing in favor of its anticompetitive ends. In contrast, National’s initial promise to the IEEE and Vertical’s silent confirmation of National’s commitment from 1994 to 2002 was entirely voluntary. The fact that this course of conduct was voluntary underscores Vertical’s anticompetitive intent in breaking this commitment. See Broadcom Corp. v. Qualcomm Inc., 501 F.3d 297, 316–17 (3d Cir. 2007) (Trinko does not preclude a monopolization claim based on allegations that the patentee deceived a standard-setting body where the patentee’s conduct was entirely voluntary and, unlike the defendant in Trinko, not governed by a compulsory regulatory framework).


50 See id. at 766. In Biowail, the FTC approved a merger between drug companies Hoechst and Marion Merrell Dow. This merger raised competitive concerns, in part because Marion was the only company with an FDA-approved drug based on Diltiazem and because Hoechst had been developing a competing drug in a joint venture with Biowail prior to the merger. As part of a consent decree, the FTC required that the merged company permit Biowail to use previously submitted toxicology data in its application to the FDA for approval of its own competing Diltiazem-based drugs. Id. at 756. Hoechst thereafter wrote a letter to the FDA granting such permission for Biowail to use its data. Id. Several months later, however, Hoechst wrote another letter to the FTC retracting and narrowing the scope of its earlier commitments. As a result, one of Biowail’s Diltiazem-based drug applications was rejected for a lack of supporting toxicology data. Biowail subsequently sued Hoechst, arguing, inter alia, that Hoechst had intentionally reneged on a commitment to the FTC in order to gain approval for its merger with Marion Merrell Dow. The court held that these facts, if proven, could constitute an actionable Section 2 claim. Id. at 766.


52 Lower court cases following Kodak offer further support for the notion that a firm’s unforeseeable attempts to change established contract terms can serve as a basis for a Section 2 claim where the other parties to the agreement are locked in. See, e.g., Subsolutions, Inc. v. Doctor’s Assocs., 62 F. Supp. 2d 616, 626 (D. Conn. 1999) (plaintiff-franchisees properly alleged tying claim where plaintiffs were locked in to defendant-franchisor’s franchise agreement because of high switching costs); Collins v. Int’l Dairy Queen, Inc., 939 F. Supp. 875, 883 (M.D. Ga. 1996) (defendant-franchisor’s motion for summary judgment on plaintiff-franchisees’ tying claim denied where plaintiff-franchisees presented evidence that defendant failed to carry out certain terms of franchise agreement in furtherance of allegedly illegal tying scheme).


55 Berkery Photo v. Eastman Kodak Co., 603 F.2d 263, 275 (2d Cir. 1979) (“Unlawfully acquired power remains anathema even when kept dormant.”).

56 See, e.g., Re/Max Int’l, Inc. v. Realty One, Inc., 173 F.3d 995, 1018 (6th Cir. 1999) (“An antitrust plaintiff is not required to rely on indirect evidence of a defendant’s monopoly power . . . when there is direct evidence that the defendant has actually set prices or excluded competition.”); FTC v. Libby, Inc., 211 F. Supp. 2d 34, 49 (D.D.C. 2002) (showing of actual detrimental market effects can eliminate the need for further inquiry into market power).


Chairman Majoras made exactly this point in a 2005 speech on standard-setting issues:

[Before lock in—or ex ante—technologies compete to be the standard, and no patent holder can demand more than a competitive royalty rate. After lock in—or after the event—the holder of the chosen technology may have the power to charge users supra-competitive royalty rates—that may ultimately be passed on to consumers in the form of higher prices.


These companies include Dell, Linksys (which was later purchased by Cisco), AltiGen Communications, and possibly others.


In its recent petition for hearing en banc in the Rambus case, the FTC recognized this very point. Pet. of Resp’t Fed. Trade Comm’n & in Re En Banc,
Following General Dynamics, a number of lower courts have affirmed that a firm with contractual commitments preventing it from raising price above competitive levels does not possess monopoly power. See, e.g., Hunt-Wesson Foods, Inc. v. Ragu Foods, Inc., 627 F.2d 919, 924 (9th Cir. 1980) (“Blind reliance upon market share, divorced from commercial reality, could give a misleading picture of a firm’s actual ability to control prices or exclude competition.”).


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(“A[n] ex ante RAND commitment prevents the effective ex post exercise of monopoly power, the essence of which is the ‘power to control prices.’”) (quoting du Pont, 351 U.S. at 391).

Rambus v. FTC, at 12 n.13 (D.C. Cir. June 6, 2008); available at http://www.ftc.gov/os/caselist/0110017/080606rambusrehearingpetition.pdf (“[A]n ex ante RAND commitment prevents the effective ex post exercise of monopoly power, the essence of which is the ‘power to control prices.’”) (quoting du Pont, 351 U.S. at 391).

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