

ANALYSIS OF PROPOSED CONSENT ORDER TO AID PUBLIC COMMENT

In the Matter of Negotiated Data Solutions LLC, File No. 051 0094

The Federal Trade Commission (“Commission”) has accepted, subject to final approval, an Agreement Containing Consent Order (“Agreement”) with Negotiated Data Solutions LLC (“N-Data”), a limited liability company whose sole activity is to collect royalties in connection with a number of patents. The Agreement settles allegations that N-Data has violated Section 5 of the Federal Trade Commission Act, 15 U.S.C. § 45, by engaging in unfair methods of competition and unfair acts or practices relating to the Ethernet standard for local area networks. Pursuant to the Agreement, N-Data has agreed to be bound by a proposed consent order (“Proposed Consent Order”).

The Proposed Consent Order has been placed on the public record for thirty (30) days for comments by interested persons. Comments received during this period will become part of the public record. After thirty (30) days, the Commission will again review the Agreement and the comments received and will decide whether it should withdraw from the Agreement or make final the Agreement’s Proposed Consent Order.

The purpose of this analysis is to facilitate comment on the Proposed Consent Order. This analysis does not constitute an official interpretation of the Proposed Consent Order, and does not modify its terms in any way. The Agreement has been entered into for settlement purposes only, and does not constitute an admission by N-Data that the law has been violated as alleged or that the facts alleged, other than jurisdictional facts, are true.

Background

The Institute of Electrical and Electronics Engineers (“IEEE”) is a standard-setting organization active in a number of different industries. IEEE standards often enhance the interoperability of communications products. One important example, which is at issue here, is the 802 series of networking standards. Many of the standards in the 802 series allow users to reliably access and share information over communications systems by interconnecting many compatible products manufactured by different producers.

The IEEE 802.3 standard, first published in 1983, and commonly referred to as “Ethernet,” applies to local area networks (“LANs”) built on copper, and more recently fiber optic, cables. That standard initially accommodated a maximum data transmission rate of 10 megabits per second (10 Mbps) between networked devices. By 1994, the 802.3 Working Group was developing a new 802.3 standard for “Fast Ethernet,” which would transmit data across a copper wire at 100 Mbps. The Working Group determined that it would be desirable for Fast Ethernet equipment to be compatible, to the extent possible, with existing LAN equipment and with future generations of equipment. A technology, variously known as “autodetection” and “autonegotiation,” was developed that would permit such compatibility.

Employees of National Semiconductor Corporation (“National”) were members and active participants in the 802.3 Working Group. In 1994, National proposed that the 802.3 Working Group adopt its autonegotiation technology, referred to as “NWay,” into the Fast Ethernet standard. At the time, National disclosed to the Working Group that it had already filed for patent protection for the technology. Several other participants also had developed competing technologies and the Working Group considered several alternatives, each having advantages and disadvantages compared to NWay. The 802.3 Working Group also considered adopting the Fast Ethernet standard without any autonegotiation feature.

At IEEE meetings to determine which autonegotiation technology to include in 802.3, one or more representatives of National publicly announced that if NWay technology were chosen, National would license NWay to any requesting party for a one-time fee of \$1,000. In a subsequent letter dated June 7, 1994, and addressed to the Chair of the 802.3 Working Group of IEEE, National wrote:

In the event that the IEEE adopts an autodetection standard based upon National’s NWay technology, National will offer to license its NWay technology to any requesting party for the purpose of making and selling products which implement the IEEE standard. Such a license will be made available on a nondiscriminatory basis and will be paid-up and royalty-free after payment of a one-time fee of one thousand dollars (\$1,000).

Based on National’s licensing assurance, and following its normal balloting and voting procedures, IEEE incorporated NWay technology into the Fast Ethernet standard, which IEEE published in final form in July 1995. To maintain compatibility with the installed base of Ethernet and Fast Ethernet equipment, subsequent revisions of the 802.3 standard also have incorporated NWay autonegotiation technology. The “Fast Ethernet” standard became the dominant standard for LANs, and users are now locked in to using NWay technology due to network effects and high switching costs. Therefore, today, autonegotiation technologies other than NWay are not attractive alternatives to NWay for manufacturers who want to include inter-generational compatibility in their Ethernet products.

NWay contributed to the success of Fast Ethernet technology in the marketplace. An installed base of millions of Ethernet ports operating at 10 Mbps already existed when IEEE published the Fast Ethernet standard. The autonegotiation technology in the Fast Ethernet standard allowed owners of existing Ethernet-based LANs to purchase and install multi-speed, Fast Ethernet-capable equipment on a piecemeal basis without having to upgrade the entire LAN at once or buy extra equipment to ensure compatibility.

National benefitted financially from its licensing assurance. The assurance accelerated sales of National products that conformed to the Fast Ethernet standard by first, allaying concerns about the future costs of autonegotiation, and so speeding completion of the standard, and second, making Fast Ethernet-compatible products backward compatible with Ethernet

equipment already installed on existing LANs, increasing the demand for Fast Ethernet products by those with existing systems.

In 1997, the United States Patent and Trademark Office issued U.S. Patent Nos. 5,617,418 and 5,687,174 (the '418 and '174 Patents) to National. Both patents arose from the patent application that National disclosed to the IEEE in 1994. National later received equivalent patents in other countries.

In 1998, National assigned a number of patents, including the '418 and the '174 Patents, to Vertical Networks ("Vertical"), a telecommunications start-up company founded by former National employees. Before the assignment, National gave Vertical a copy of the June 7, 1994 letter to the 802.3 Working Group. Vertical's outside patent counsel, Mr. Alan Loudermilk, acknowledged in writing that National had informed him "that several of the patents may be 'encumbered'" by actions National had taken with respect to the IEEE standards. The final agreement between Vertical and National stated that the assignment was "subject to any existing licenses that [National] may have granted." It further provided, "Existing licenses shall include ... [p]atents that may be encumbered under standards such as an IEEE standard"

In 2001, Vertical turned to its intellectual property portfolio in an effort to generate new revenues by licensing its technology to third parties. One aspect of this strategy was Vertical's effort to repudiate the \$1,000 licensing term contained in National's 1994 letter of assurance to the IEEE. On March 27, 2002, Vertical sent a letter to the IEEE that purported to "supersede" any previous licensing assurances provided by National. Vertical identified nine U.S. patents assigned to it by National, including the '174 and '418 patents, and promised to make available to any party a non-exclusive license "on a non-discriminatory basis and on reasonable terms and conditions including its then current royalty rates."

In the Spring of 2002, Vertical developed a list of "target companies" that practiced the IEEE 802.3 standard and which it believed infringed on the '174 and '418 patents. Vertical sought to enforce the new licensing terms on these companies. These companies, which included many large computer hardware manufacturers, represented a substantial majority of all producers of 802.3 ports. Vertical's patent counsel, Mr. Loudermilk, sent letters to most of these companies between 2002 and 2004 offering a license for patents covering aspects of "the auto-negotiation functionality" in networking products, including products compliant with IEEE 802.3. Vertical also filed suit against a number of companies alleging that "switches, hubs, routers, print servers, network adapters and networking kits" having autonegotiating compatibility, infringed its '174 and '418 patents. Vertical entered into several licensing agreements producing licensing fees far in excess of \$1,000 from each licensed company.

In late 2003, Vertical assigned some of its patent portfolio, including the '174 and '418 patents, to N-Data, a company owned and operated by Mr. Loudermilk.¹ N-Data was aware of National's June 7, 1994 letter of assurance to the IEEE when Vertical assigned those patents to N-Data. Yet it rejected requests from companies to license NWay technology for a one-time fee of \$1,000. Instead, N-Data threatened to initiate, and in some cases prosecuted, legal actions against companies refusing to pay its royalty demands, which are far in excess of that amount.

The Proposed Complaint

Vertical and N-Data sought to exploit the fact that NWay had been incorporated into the 802.3 standard, and had been adopted by the industry for a number of years, by renegeing on a known commitment made by their predecessor in interest. Even if their actions do not constitute a violation of the Sherman Act, they threatened to raise prices for an entire industry and to subvert the IEEE decisional process in a manner that could cast doubt on the viability of developing standards at the IEEE and elsewhere. The threatened or actual effects of N-Data's conduct have been to increase the cost of practicing the IEEE standards, and potentially to reduce output of products incorporating the standards.² N-Data's conduct also threatens to reduce the incentive for firms to participate in IEEE and in other standard-setting activities, and to rely on standards established by standard-setting organizations.

The Proposed Complaint alleges that this conduct violates Section 5 of the FTC Act in two ways: first, N-Data engaged in an unfair method of competition; and second, N-Data engaged in an unfair act or practice.

1. Unfair Method of Competition

N-Data's conduct constitutes an unfair method of competition. The Supreme Court in *FTC v. Sperry & Hutchinson Co.* endorsed an expansive reading of the "unfair method of competition" prong of Section 5, stating that the Commission is empowered to "define and proscribe an unfair competitive practice, even though the practice does not infringe either the letter or spirit of the antitrust laws" and to "proscribe practices as unfair ... in their effect on

¹ Vertical subsequently sold its remaining business assets and ceased operations.

² The conduct by Vertical and N-Data has led to, or threatened to lead to, increased prices in the markets for autonegotiation technology (1) used in 802.3 compliant products and (2) used in products that implement an IEEE standard enabling autonegotiation with 802.3 compliant products.

competition.”³ That description of the scope of Section 5 accords with the legislative history of Section 5.⁴

Notwithstanding that broad description, the unfair method of competition prong of Section 5 is subject to limiting principles. The first relates to the nature of the conduct. In *OAG*, the Second Circuit held that such a violation could not be found where the respondent “does not act coercively.”⁵ Similarly, in *Ethyl* the Second Circuit held that “at least some indicia of oppressiveness must exist . . .”⁶ This requirement is met here, given N-Data’s efforts to exploit the power it enjoys over those practicing the Fast Ethernet standard and lacking any practical alternatives. This form of patent hold-up is inherently “coercive” and “oppressive” with respect to firms that are, as a practical matter, locked into a standard.

The second limiting principle relates to the effects of the conduct. Although the Supreme Court has made it clear that the respondent’s conduct need not violate the letter (or even the spirit) of the antitrust laws to fall under Section 5, that does not mean that conduct can be considered an unfair method of competition if it has no adverse effect at all on competition. That requirement, however, is also satisfied here, given the conduct’s adverse impact on prices for autonegotiation technology and the threat that such conduct poses to standard-setting at IEEE and elsewhere.

Respondent’s conduct here is particularly appropriate for Section 5 review. IEEE’s determination to include National’s technology in its standard rested on National’s commitment to limit royalties to \$1,000. That commitment had substantial competitive significance because it extended not to a single firm, but rather to an industry-wide standard-setting organization. Indeed, in the standard-setting context with numerous, injured third parties who lack privity

³ *FTC v. Sperry & Hutchinson Co.*, 405 U.S. 233, 239 (1972); *see also* *FTC v. Ind. Fed’n of Dentists*, 476 U.S. 447, 454 (1986). *See generally* Concurring Opinion of Commissioner Jon Leibowitz, *In re Rambus, Inc.*, Docket No. 9302, available at <http://www.ftc.gov/os/adjpro/d9302/060802rambusconcurringopinionofcommissionerleibowitz.pdf>; Statement of Commissioner J. Thomas Rosch, “Perspectives on Three Recent Votes: the Closing of the Adelphia Communications Investigation, the Issuance of the Valassis Complaint & the Weyerhaeuser Amicus Brief,” before the National Economic Research Associates 2006 Antitrust & Trade Regulation Seminar, Santa Fe, New Mexico (July 6, 2006) at 5-12, available at <http://www.ftc.gov/speeches/rosch/Rosch-NERA-Speech-July6-2006.pdf>.

⁴ *See, e.g.*, Cong. Rec. 12,153 (1914) (statement of Sen. Robinson) (“unjust, inequitable or dishonest competition” proscribed), 51 Cong. Rec. 12,154 (1914) (statement of Sen. Newlands) (conduct that is “contrary to good morals” proscribed).

⁵ *Official Airline Guides v. FTC*, 630 F.2d 920, 927 (2d Cir. 1980) (“*OAG*”).

⁶ *E.I. Du Pont v. de Nemours & Co. v. FTC*, 729 F.2d 128, 139-40 (2d Cir. 1984) (“*Ethyl*”).

with patentees and with the mixed incentives generated when members may be positioned to pass on royalties that raise costs market-wide contract remedies may prove ineffective, and Section 5 intervention may serve an unusually important role.

N-Data's conduct, if allowed, would reduce the value of standard-setting by raising the possibility of opportunistic lawsuits or threats arising from the incorporation of patented technologies into the standard after a commitment by the patent holder. As a result, firms may be less likely to rely on standards, even standards that already exist. In the creation of new standards, standard-setting organizations may seek to avoid intellectual property entirely, potentially reducing the technical merit of those standards as well as their ultimate value to consumers.

A mere departure from a previous licensing commitment is unlikely to constitute an unfair method of competition under Section 5. The commitment here was in the context of standard-setting. The Supreme Court repeatedly has recognized the procompetitive potential of standard-setting activities. However, because a standard may displace the normal give and take of competition, the Court has not hesitated to impose antitrust liability on conduct that threatens to undermine the standard-setting process or to render it anticompetitive.⁷ The conduct of N-Data (and Vertical) at issue here clearly has that potential.⁸

2. Unfair Act or Practice

N-Data's efforts to unilaterally change the terms of the licensing commitment also constitute unfair acts or practices under Section 5 of the FTC Act. The FTC Act states that "unfair or deceptive acts or practices in or affecting commerce[] are . . . unlawful." An unfairness claim under this part of Section 5 must meet the following statutory criteria:

The Commission shall have no authority . . . to declare unlawful an act or practice on the grounds that such act or practice is unfair unless the act or practice causes or is likely to cause substantial injury to consumers which is not reasonably

⁷ See *Standard Sanitary Mfg. Co. v. United States*, 226 U.S. 20, 41 (1912); *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 500 (1989); *Am. Soc'y of Mech. Engineers, Inc. v. Hydrolevel Corp.*, 456 U.S. 556, 571 (1982).

⁸ It is worth noting that, because the proposed complaint alleges stand-alone violations of Section 5 rather than violations of Section 5 that are premised on violations of the Sherman Act, this action is not likely to lead to well-founded treble damage antitrust claims in federal court. See Herbert Hovenkamp, *Federal Antitrust Policy* at 588 (2d ed. 1999).

avoidable by consumers themselves and not outweighed by countervailing benefits to consumers or to competition.⁹

The Commission may consider established public policies as evidence to be considered with all other evidence, though not as a primary basis for a determination of unfairness.¹⁰ As the Eleventh Circuit emphasized in *Orkin Exterminating Co. v. FTC*,¹¹ the Commission has applied limiting principles requiring a showing that (1) the conduct caused “substantial consumer injury,” (2) that injury is “not . . . outweighed by any countervailing benefits to consumers or competition that the practice produces,” and (3) it is an injury that “consumers themselves could not reasonably have avoided.”¹²

This Section 5 claim against the efforts of Vertical and N-Data to unilaterally increase the price for the relevant technology by knowingly renegeing on National’s commitment meets these statutory criteria, and thus constitutes a violation of Section 5’s prohibition of unfair acts and practices. NWay was chosen for the standard on the basis of the assurances made by National to the IEEE 802.3 Working Group. Further, the industry relied, at least indirectly, on National’s assurances regarding pricing, and made substantial and potentially irreversible investments premised on those representations. After the standard became successful, and it became difficult, if not impossible, for the industry to switch away from the standard, Vertical and then N-Data took advantage of the investments made by these firms by renegeing on National’s commitment. Because it is now no longer feasible for the industry to remove the technologies, the value that N-Data was able to extract from market participants was due to the opportunistic nature of its conduct rather than the value of the patents.¹³

Accordingly, an action against this conduct meets the criteria set forth in the statute and in *Orkin*. First, N-Data’s renegeing on its pricing commitments here involved “substantial consumer

⁹ 15 U.S.C. § 45(n) (1992).

¹⁰ *Id.*

¹¹ *Orkin Exterminating Co. v. FTC*, 849 F.2d 1354, 1364 (11th Cir. 1988).

¹² See Letter from Federal Trade Commission to Senators Ford and Danforth (Dec. 17, 1980), reprinted in H.R. Rep. No. 156, Pt. 1, 98th Cong., 1st Sess. 33-40 (1983) *available at* <http://www.ftc.gov/bcp/policystmt/ad-unfair.htm>, appended to the Commission’s decision in *International Harvester*, 104 F.T.C. at 949, 1061 (1984), and subsequently codified by Congress at 15 U.S.C. § 45(n).

¹³ The IEEE designed its rules to avoid just such a result. IEEE’s stated purpose for requesting letters of assurance was to avoid giving “undue preferred status to a company” and to ensure that the adoption of a technology would not be “prohibitively costly or noncompetitive to a substantial part of the industry.” 1994 *IEEE Standards Operations Manual* §6.3.

injury.” The increase in royalties demanded by Vertical Networks and later N-Data could result in millions of dollars in excess payments from those practicing the standard, not to mention the legal fees those firms might spend defending lawsuits.¹⁴ In addition, often in market-wide standard-setting contexts, the licensees have an incentive to pass along higher costs to the ultimate consumers who purchase the products.¹⁵ Thus, these end consumers who purchase products using N-Data’s technology may face increased prices due to the higher royalties. Further, those demands also have no apparent “countervailing benefit” to those upon whom demands have been made, ultimate consumers, or to competition so the second requirement is also met. With respect to the third requirement, both the Commission and the Eleventh Circuit in *Orkin* stated that consumers “may act to avoid injury before it occurs if they have reason to anticipate the impending harm and the means to avoid it, or they may seek to mitigate the damage afterward if they are aware of potential avenues to that end.”¹⁶ Here, those who created the standard had no way to anticipate the repudiation of the price commitment before it occurred and, apart from expensive litigation, those locked into the standard had no way to avoid the threatened injury posed by the demands that they faced. Thus, those practicing the standard were locked in to even a greater extent than the consumers in *Orkin*. Put simply, this is a form of what has been described as “patent hold-up.”

The facts alleged in the complaint here are similar to those found in the Commission’s decision in *Orkin*, which was affirmed by the Eleventh Circuit.¹⁷ In that case, the respondent signed contracts with consumers to supply lifetime extermination services at a fixed annual renewal fee. Years later, the respondent unilaterally increased these fees. Consumers needing extermination services had no reason to anticipate *Orkin*’s unilateral price increase and there was no evidence that they could contract with *Orkin*’s competitors on terms similar to *Orkin*’s initial terms. The Commission held, and the Eleventh Circuit agreed, that *Orkin*’s unilateral price increase was an unfair act or practice under Section 5. Similarly, National made non-expiring royalty commitments that Vertical and N-Data later repudiated with unilateral increases, which

¹⁴ The Commission has a “longstanding position that the statutory prohibition against ‘unfair or deceptive acts or practices’ includes practices that victimize businesspersons as well as those who purchase products for their own personal or household use,” given that businesses “clearly do consume goods and services that may be marketed by means of deception and unfairness.” Brief of Federal Trade Commission as Amicus Curiae at 3-4, 8-9, *Vermont v. International Collection Service, Inc.*, 594 A.2d 426 (Vt. 1991) (citing cases); see also, e.g., 16 C.F.R. § 436.1 (FTC rule protecting franchisees); *United States Retail Credit Ass’n v. FTC*, 300 F.2d 212 (4th Cir. 1962) (deception involving business clients); *United States Ass’n of Credit Bureaus, Inc. v. FTC*, 299 F.2d 220 (4th Cir. 1962) (same).

¹⁵ Susan A. Creighton, *Cheap Exclusion*, 72 ANTITRUST L.J. 975, 994 (2005).

¹⁶ *Orkin*, 849 F.2d at 1365.

¹⁷ *In re Orkin Exterminating Co.*, 108 F.T.C. 263 (1986), *aff’d*, 849 F.2d 1354 (11th Cir. 1988).

the industry could not have reasonably anticipated before the market wide adoption of the standard and which consumers had no chance of avoiding due to network effects and lock-in.

Clearly, merely breaching a prior commitment is not enough to constitute an unfair act or practice under Section 5. The standard-setting context in which National made its commitment is critical to the legal analysis. As described above, the lock-in effect resulting from adoption of the NWay patent in the standard and its widespread use are important factors in this case. In addition, the established public policy of supporting efficient standard-setting activities is an important consideration in this case.¹⁸ Similarly, it must be stressed that not all breaches of commitments made by owners of intellectual property during a standard-setting process will constitute an unfair act or practice under Section 5. For example, if the commitment were immaterial to the adoption of the standard or if those practicing the standard could exercise countermeasures to avoid injury from the breach, the statutory requirements most likely would not be met. Finally, it needs to be emphasized that not all departures from those commitments will be treated as a breach. The *Orkin* court suggested that there might be a distinction between an open-ended commitment and a contract having a fixed duration.¹⁹ That distinction does not apply here because the context of the commitment made it plain that it was for the duration of National's patents. However, most such commitments, including the one here, are simply to offer the terms specified. Indeed, those principles are reflected in the remedy set forth in the consent decree.

The Proposed Consent Order

The Proposed Consent Order prohibits N-Data from enforcing the Relevant Patents, defined in the order, unless it has first offered to license them on terms specified by the order. The terms of that license follow from those promised by National Semiconductor in its letter of June 7, 1994, to the IEEE. Specifically, N-Data must offer a paid-up, royalty-free license to the Relevant Patents in the Licensed Field of Use in exchange for a one-time fee of \$1,000. The form of this license is attached as Appendix C to the order. The Licensed Field of Use is defined in the license as the "use of NWay Technology to implement an IEEE Standard," and this includes "optimization and enhancement features" that are consistent with such use. NWay Technology is defined in the license to have the same meaning as it did in the June 7, 1994 letter, and the license gives examples of documents describing the use of NWay Technology.

The Commission recognizes that some firms may inadvertently allow the \$1,000 offer from N-Data to languish. Therefore, if an offeree has failed to accept such an offer within 120

¹⁸ See *Allied Tube & Conduit Corp. v. Indian Head, Inc.*, 486 U.S. 492, 500-01 (1998) (regarding the potential procompetitive advantages of private associations promulgating safety standards).

¹⁹ *Orkin*, 849 F.2d at 1361.

days, the Proposed Consent Order allows N-Data to sue to enforce the Relevant Patents. At the time N-Data files suit, however, it must make a second offer. This second offer provides a prospective licensee with an opportunity to accept the patent license specified by the order in return for a payment of thirty-five thousand dollars (\$35,000). The requirement that the second offer be delivered in the context of litigation gives N-Data an incentive to pursue patent enforcement only against companies over which it has a reasonable likelihood of prevailing in court. It will also ensure that the second offer will receive the full attention of knowledgeable counsel for the offeree. A \$35,000 license fee will offset some of N-Data's costs of litigation, and it will discourage recipients of an initial offer from simply waiting to be sued, and then accepting the first offer. The offeree's time to accept the second offer expires with the time to file a responsive pleading to the filing that accompanies the second offer. After that, the amount that N-Data can collect from an accused infringer is not limited by the order.

The Proposed Consent Order requires N-Data to distribute copies of the complaint and the Proposed Consent Order to specified persons. It also prohibits N-Data from transferring any of the Relevant Patents, except to a single person who has agreed to be bound by the Proposed Consent Order and by the patent licenses formed thereunder. The Proposed Consent Order also contains standard reporting, notification and access provisions designed to allow the Commission to monitor compliance. It terminates twenty (20) years after the date it becomes final.