No. 06-937

In The Supreme Court of the United States

QUANTA COMPUTER, INC., AND QUANTA COMPUTER USA, INC., Q-LITY COMPUTER, INC.,

Petitioners,

v.

LG ELECTRONICS, INC.,

Respondent.

On Writ Of Certiorari To The United States Court Of Appeals For The Federal Circuit

BRIEF *AMICUS CURIAE* OF COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION IN SUPPORT OF PETITIONERS

BRIAN KAHIN
MATTHEW SCHRUERS
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION
900 17th Street, NW
Washington, DC 20006
(202) 783-0070

JONATHAN BAND
Counsel of Record
JONATHAN BAND PLLC
21 Dupont Circle, NW
Washington, DC 20036
(202) 296-5675
jband@policybandwidth.com

Counsel for Amicus Curiae

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Computer & Communications Industry Association ("CCIA") submits this brief as *amicus curiae* and respectfully requests that the Federal Circuit's decision be reversed.

INTEREST OF *AMICUS*[1]

CCIA members participate in many sectors of the computer, information, and communications technology industry and range in size from small entrepreneurial firms to the largest in the business. CCIA members use the patent system regularly, and depend upon it to fulfill the constitutional mandate that it promote innovation. The information technology (IT) produced by CCIA's industry sector has played a central role in promoting innovation and economic growth over the past 20 years, but today imbalances in the patent system adversely affect this industry sector. CCIA has filed *amicus* briefs in other cases

[1] No counsel for a party authored this brief in whole or in part, and no counsel or party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than CCIA, its members, or its counsel made a monetary contribution to its preparation or submission. The parties have consented to the filing of this brief; Petitioners and Respondent have submitted letters of blanket consent to the Clerk of the Court.

before this Court where markets for uniquely complex IT products have been at risk from the Federal Circuit's patent-centric jurisprudence. Recent examples of this include two cases in which this Court unanimously reversed the Federal Circuit: *eBay, Inc. v. MercExchange LLC*, 126 S. Ct. 1837 (2006), and *KSR International Co. v. Teleflex, Inc.*, 127 S. Ct. 1727 (2007). While CCIA does not have a direct financial interest in the outcome of this litigation, allowing the Federal Circuit's decision to stand would threaten the future economic prospects of CCIA's industry sector.

SUMMARY OF ARGUMENT

In *Mallinckrodt Inc. v. Medipart, Inc.*, 976 F.2d 700 (Fed. Cir. 1992), the Federal Circuit upheld a "single use only" restriction accompanying the sale of a medical device as a valid limitation on the use of the device, enforceable as patent infringement as well as under contract law. *Id.* at 707 n.6. By finding a "conditional sale," the Federal Circuit limited the effect of the first sale doctrine, just as this Court did in *A.B. Dick* nearly a century ago, only to overrule that decision five years later when the consequences became evident. *See Motion Picture Patents Co. v. Universal Film Mfg. Co.*, 243 U.S. 502, 518 (1917) (overruling *Henry v. A.B. Dick Co.*, 224 U.S. 1 (1912)).

Under the Federal Circuit's rule, making sales "conditional" circumvents the exhaustion doctrine

and allows patentees to retain the option of asserting the full arsenal of patent rights at any point that component changes hands. In *Quanta*, the Federal Circuit expands on *Mallinckrodt* to offer patentees a prospect that is far more enticing than single use restrictions, and far more disruptive: the opportunity to assess license fees anew throughout the distribution chain. In the short term, the Federal Circuit's rule offers a windfall to appellant LG Electronics ("LGE") and others who are quick to arbitrage the market's failure to follow *Mallinckrodt's* avoidance of this Court's precedents. The loss of confidence in who owns what and for what purposes will create a perverse market for hidden interests whose value lies in their potential to surprise and hold products hostage – and whose negotiation alone will impose tremendous burdens and risks on today's competitive value chains.

In the long term, the rule will create a shadow economy of permissions that advantage opportunists, especially those who own patents outside their core business and so have little need to cooperate in promoting stable and predictable markets in those areas. It will disrupt and skew the entire business ecology of the IT sector to favor upstream patent interests at the expense of assemblers, integrators, vendors, and end users – and likely return the world to a less efficient economy based on vertical integration and stovepiped products and services that do not interoperate.

The impact will be uniquely severe on information and communications technology and the vast array of services that depend on it. Products and services in this sector, especially those based on general purpose computing, are already vulnerable to opportunistic behavior because of their complexity and interdependence. Under the Federal Circuit's rule, practically every transaction within this environment, however routinized it may be now, offers new opportunity for hold-up by multiple patent holders.

ARGUMENT

1. The Federal Circuit's invitation to use "conditional sales" to defeat exhaustion threatens the vitality and efficiency of IT product markets.

The Federal Circuit's rule allows patent holders to engineer "conditional sales" to evade exhaustion for an infinite variety of purposes. It enables them to reach across the stream of commerce and dictate the terms of use, long after products have been manufactured, based on terms in agreements for "conditional sales" that are inaccessible to the current owner of the product.

Like all markets, IT markets function efficiently when they are transparent and transaction costs are low. This depends not only on a common understanding of what the product is but rather on legal standards that can be taken for granted: *i.e.*, a simple,

shared understanding of property rights and the nature of the transaction. Like other goods, standard IT components are transacted as tangible personal property through simple sales. In general, what you see is what you what get: a known item with clear physical boundaries over which the buyer has full and unfettered dominion. Sales are governed by legal rules so well established that they are practically invisible, including long standing common law doctrines disfavoring restraints on alienation and servitudes on chattels. Zechariah Chafee, Jr., *Equitable Servitudes on Chattels*, 41 Harv. L. Rev. 945, 977-987 (1928) (noting arguments against servitudes).

Transaction costs are substantially higher for real property. The high cost and unique nature of real property, along with its relationship to surrounding property, justify the costs of searching for missing information and heightened attention to detail and contingencies. Even so, an elaborate infrastructure has arisen to define boundaries, insure against surprises, and build confidence in the market. Boundaries are surveyed and recorded. Public recording provides compelling evidence of ownership. Abstracts are compiled, and title insurance is widely available at a modest cost.

In sum, transparency and shared information are key attributes of property whether the markets are thin (real estate and patents) or thick (chattels,

including standard IT components).[2] Although the connection between property and markets is generally taken for granted, serious problems arise when court decisions sever that connection.

The Federal Circuit's expansive regime for "conditional sales" does precisely that. It exalts the patentee's interest in extending patent rights at the expense of interests in tangible personal property, and at the further expense of an efficiently functioning product market. It invites clever lawyers to create private regulatory regimes sanctioned by public law to extract new revenues for patent holders at every transaction point in the supply chain.

As Petitioners points out: "There is only one monopoly profit to be obtained in any vertical distribution chain." Pet. Br. 49. In the long run, informed IT buyers may eventually understand how patentees are seeking to take advantage of their expanded patent rights. They can then try to construct new assurances going back up the distribution chain. But in this case the patentee reaps a windfall if the Federal Circuit's rejection of the first sale doctrine is

[2] Although on opposite sides of the patent reform debate, Prof. Mark Lemley and Nathan Myrhvold, CEO of Intellectual Ventures, have argued jointly for requiring public registration of all patent licenses, claiming that this is needed to develop a robust and vigorous market for licensing. *See* Mark A. Lemley & Nathan Myhrvold, *How to Make a Patent Market*, Stanford L. & Econ. Olin Working Paper No. 347 (Aug. 2007) *available at* http://ssrn.com/abstract=1012726 (last visited Nov. 8, 2007).

upheld – and so will be encouraged to assert its patents an untold number of times, all the way down to end users. This is not mere speculation; the Petition for Certiorari points out that the patents in question have already been asserted against over 70 other major companies worldwide. Pet. 4.

By supporting the widest possible set of strategic and tactical options for extracting value from patents, the Federal Circuit's rule promises to turn a robust, high-volume market into a lawyers' playground – a top-down shadow economy of permissions that contributes no technology or economic value but is able to exploit whatever dependencies, lock-in, and inertia exists in the present distribution chain. This is not a prescription for innovation, unless the capacity to hijack downstream investments is truly needed as an inducement to invention.

As the Federal Circuit's rule moves market power upstream and undermines confidence downstream, an elaborate web of indemnifications may coalesce around the companies with the largest portfolios, most extensive cross-licenses, and deepest pockets. But assembly and integration may also move back in-house to avoid these expanding costs and risks, undermining the growing markets for technology based on "open innovation" in supply chains.[3] This,

[3] *See generally* Asish Arora, *Markets for Technology* (2004); Henry Chesborough, *Open Innovation* (2003) (describing recent supply chain innovation).

together with the patent holder's newfound ability to control downstream commerce through "conditional sales," threatens a return to the era of vertical integration, before business focus, specialization, supply chain management, and international trade brought the high quality at low prices that we enjoy today.

2. Imposing new search costs on all purchasers of IT goods represents bad public policy.

The exhaustion doctrine, as this Court has interpreted it, provides a clear, bright line segregating the familiar laws of personal property and sales from the unique power of federal patent laws. Preserving this clarity is essential inasmuch as patents and personal property are governed by fundamentally different regimes with vastly different theoretical and practical implications. These stark differences provide a strong policy argument for exhaustion and against constraints or conditions on the free tradability and use of personal property.

Patent infringement is a strict liability tort. The public is responsible for divining the amorphous and complex boundaries of all patent rights, known and unknown. In theory, the public disclosure function of the patent system gives the public notice of patents in force. The costs of searching for patents vary from field depending on the quality and volume of patents and the nature of the non-patent literature, but are indisputably high for complex products. As a Cisco witness explained at a 2002 Federal Trade Commission

hearing: "[T]here are too many patents to be able to even locate which ones are problematic. I used to say only IBM does clearance searches . . . but IBM tells me even they don't do clearance searches anymore."[4]

The cost now imposed by the Federal Circuit is not merely the cost of a clearance search – which alone is substantial[5] – but the cost of searching the upstream portion of the distribution chain of an IT good for hidden servitudes, for which no government registry of any sort exists. The scope of a patent is, at least in theory, disclosed to the public, but licenses are not. *See* Lemley & Myrhvold, *supra* note 2. So even though product clearance searches, aided by a federal patent registry, cannot be conducted with confidence by even the largest in the industry, the Federal Circuit's decision now proposes to saddle the entire marketplace with a new dimension of search costs, for all components, unaided by any system of organization whatsoever. This Court recently ruled against requiring a similarly impossible search for intellectual property rights holders, stating that the

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[4] *See Competition, Economic, and Business Perspectives on Substantive Patent Law Issues: Non-Obviousness and Other Patentability Criteria: Hearing Before the Federal Trade Commission* 81 (Oct. 30, 2002) (statement of Robert Barr, Worldwide Patent Counsel, Cisco Systems) *available at* http://www.ftc.gov/opp/intellect/021030trans.pdf (last visited Nov. 8, 2007).

[5] The average cost of a validity opinion is $15,241. An infringement opinion averages $13,786. AIPLA, Report of the Economic Survey, I-77 (2007). These costs are per patent, not per product.

statute did not require such a "search for the source of the Nile and all its tributaries." *Dastar Corp. v. Twentieth Century Fox Corp.*, 539 U.S. 23, 36 (2003) (construing Lanham Act).

The combination of strict liability and high search costs reveals the practical necessity for a bright-line first sale doctrine. The doctrine focuses the costs at one critical point in the chain of the manufacture and sale of products. This is the point where patents are in effect embedded (whether by license or by the patentee) in tangible personal property and released into commerce with the imprimatur of the manufacturer as assurance for the downstream market. Here patents, capital investment, and credibility converge, and the two sides are likely to be both informed and well matched so that search and transaction costs can be minimized.

3. The Federal Circuit's limitation of the exhaustion doctrine is uniquely damaging to the IT sector.

The Federal Circuit's exaltation of the power of patents over product markets represents a fundamental blindness toward the economic context for information technology. Marketed IT products have thousands of potentially patentable functions, whereas pharmaceuticals may be effectively protected by a single patent. Since people want products rather than patents, the value of individual IT patents is diluted by "the fact that complex technologies are

synthetic systems that are more than the sum of their parts." Don E. Kash & William Kingston, *Patents in a World of Complex Technologies*, 28 Sci. & Pub. Policy 1, 12 (2001). Because of the complex, interdependent nature of IT products, large companies have found extensive cross-licensing essential to maintaining freedom to operate and the freedom of action needed to develop new products. Since cross-licensing means opting out of exclusivity, this also works to lower the value of individual patents, but not enough to diminish demand for more patents and larger portfolios. *See* Bronwyn H. Hall & Rosemarie H. Ziedonis, *The Patent Paradox Revisited: An Empirical Study of Patenting in the U.S. Semiconductor Industry, 1979-95*, 32 Rand J. of Econ. 101 (2001).

Yet a number of the Federal Circuit's decisions pull against these marketplace realities. The court's rule on automatic injunctive relief, which this Court struck down in *eBay v. MercExchange*, 126 S. Ct. at 1841, held complex products hostage to patents for functions that represented only a tiny fraction of the product's value. The Federal Circuit's low standard of nonobviousness, rejected by this Court in *KSR International v. Teleflex*, 127 S. Ct. at 1742-43, inflated the number of patents, especially patents for trivial combinations likely to be "invented" independently many times over. Despite well-known deficiencies in the PTO's examination process and widespread

concerns about patent quality,[6] the Federal Circuit has endowed issued patents with an unjustifiably enhanced presumption of validity that can only be overcome with "clear and convincing evidence." *American Hoist & Derrick Co. v. Sowa & Sons, Inc.*, 725 F.2d 1350, 1368 (Fed. Cir.), *cert. denied*, 469 U.S. 821 (1984). The Federal Circuit's *State Street* decision, not yet visited by this Court, threw open the floodgates for patents at higher levels of abstraction, including non-technological innovations formerly rejected under the business method exclusion. *State Street Bank & Trust Co. v. Signature Fin. Group, Inc.*, 149 F.3d 1368 (Fed. Cir. 1998).

By making patents plentiful, powerful, and easy to assert, the Federal Circuit has abetted portfolio racing and helped bring about the patent thickets that shroud the patent landscape, undermine the public disclosure principle, and frustrate the notice function. The notice function in particular has been limited by the Federal Circuit's de novo review of claims interpretation. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1456 (Fed. Cir. 1998) (en banc). Economists have found a relationship between notice failure and abstract subject matter evidenced by increased litigation rates for software patents, and greatly increased rates for business method patents.

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[6] *See IPO Survey: Corporate Patent Quality Perceptions in the U.S.*, Intellectual Property Owners Association, Sept. 20, 2005, *available at* http://www.ipo.org/ (last visited Nov. 8, 2007).

See James Bessen & Michael Meurer, "What's Wrong with the Patent System? Fuzzy Boundaries and the Patent Tax," *First Monday*, vol. 12, no. 6 (June 2007) *available at* http://firstmonday.org/issues/issue12_6/bessen/index.html.

This clouded environment has created opportunities and ample awards for surprise and hold-up. As Justice Kennedy observed in his concurrence in *eBay*: "An industry has developed in which firms use patents not as a basis for producing and selling goods but, instead, primarily for obtaining licensing fees." He noted that a patent that was a small component of a product could be exploited for undue leverage in negotiations by virtue of the threat of an injunction. *Id.* at 1842.

The concern of commentators to date has been with threats posed by non-producing entities outside the product supply chain (often described as "trolls"), but the Federal Circuit's abrogation of the exhaustion doctrine offers the same opportunities for surprise and hold-up from *within* established value chains. This is a zone where ongoing business relationships are valued, and where major companies are commonly cross-licensed with each other. Yet the Federal Circuit's reinvention of "conditional sales" allows LG Electronics, one of the three largest Korean chaebols, to leapfrog its cross-licensed relationship with Intel to pursue smaller companies who buy and assemble components for others. These companies lack the

substantial patent portfolios needed to secure portfolio cross-license from LG Electronics.[7] Stripped of the exhaustion doctrine's protection by the Federal Circuit, their role in the supply chain is in jeopardy. Indeed, the entire IT supply chain, broad and deep as it is, is at risk from LGE's demands. Even end users are at risk if they are large enough to make an attractive target – or if they are too small to resist LGE's demands. Nor is the opportunity for asserting cross-licensed portfolios against downstream entities limited to LGE. Any and all of the patent holders that are presently neutralized by cross-licensing have effectively been given a hunting license in the open season declared by the Federal Circuit.

CONCLUSION

The challenge presented by the Federal Circuit's rule is strikingly similar to that faced by this Court nearly 100 years ago. Chief Justice White, dissenting in *Henry v. A.B. Dick*, argued that the effect of that ruling "unwarrantedly extend[ed] the Federal judicial power", resulting in a principle "as broad as society itself, affecting a multitude of people, and capable of

[7] The trial court in *Quanta* assumed that a non-assertion agreement between Microsoft and LGE protected the defendant companies by virtue of the fact that they were Microsoft licensees, licensed to install Microsoft products. The Federal Circuit reversed, finding that an issue of fact precluded summary judgment.

operation upon every conceivable subject of human contract, interest, or activity". 224 U.S. at 49-50.

When the Court in *Motion Picture Patents Co*. overruled *A.B. Dick* a mere five years later, it observed the consequences predicted by the dissent: "The high standing of the court rendering this decision and the obvious possibilities for gain in the method which it approved led to an immediate and widespread adoption of the system, in which these restrictions expanded into more and more comprehensive forms". 243 U.S. at 515. This mischief led Justice Clarke to conclude that "[a] restriction which would give to the plaintiff such a potential power for evil over an industry which must be recognized as an important element in the amusement life of the nation, under the conclusions we have stated in this opinion, is plainly void". *Id.* at 519.

Today, the Court does not have to overrule its own precedent; it need merely confirm it. Chief Justice White's concerns are as compelling now as they were prescient in 1912. But the stakes are greater, extending beyond the facts in issue, beyond any particular industry, such as the "amusement life of the nation", reaching to the very heart of the sector that has most conspicuously enabled innovation and economic growth over the past two decades. Like the short-lived rule in *A.B. Dick*, the Federal Circuit's rule has vast practical implications, now made infinitely broader and deeper by a pervasive, interconnected digital economy. Like *A.B. Dick*, the Federal

Circuit's decision below effectively subordinates state law to federal law and exalts patent law over the general law of personal property, sales, and chattels – thereby surreptitiously, but radically, expanding the Federal Circuit's own jurisdiction over commerce.

For the foregoing reasons, CCIA respectfully urges this Court to reverse the Federal Circuit's decision.

Respectfully submitted,

BRIAN KAHIN
MATTHEW SCHRUERS
COMPUTER & COMMUNICATIONS INDUSTRY ASSOCIATION
900 17th Street, NW
Washington, DC 20006
(202) 783-0070

JONATHAN BAND
Counsel of Record
JONATHAN BAND PLLC
21 Dupont Circle, NW
Washington, DC 20036
(202) 296-5675
jband@policybandwidth.com

Counsel for Amicus Curiae

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