

A RATIONAL ANALYTICAL BOUNDARY FOR DETERMINATION OF INFRINGEMENT BY EXTRATERRITORIALY-DISTRIBUTED SYSTEMS

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ABSTRACT

The territorial view of patent infringement law is increasingly in conflict with the realities of transnational commerce as exemplified in the fields of telecommunications, distributed computing and the internet. The Federal Circuit's recent decision in *NTP, Inc. v. Research in Motion, Ltd.*¹ did little to reduce the tension. The Federal Circuit concluded in *NTP* that the "invention as a whole" was "controlled" and "beneficially used" in the United States, and thus infringing under United States law, merely because the end user of the accused system was located in the United States. However, *Decca Ltd. v. U.S.*,² the Court of Claims decision on which *NTP* relied, focused on the location of the patentably distinctive aspect of the claimed invention. Under the proper application of *Decca*, Research in Motion's ("RIM") system should have been held non-infringing. Requiring the identification of the patentably distinctive aspect of a claimed invention consistent with *Decca* would have clarified the infringement analysis, created predictability and provided a mechanism for providing a remedy under the laws of the country most directly connected to the practice of the actual invention, i.e., the country where the patentably distinctive aspect of

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¹ 418 F.3d 1282 (Fed. Cir. 2005), *cert. denied*, 126 S. Ct. 1174 (2006).

² 544 F.2d 1070 (Ct. Cl. 1976).

the system is located. Instead, since the Supreme Court has denied certiorari in *NTP*, potential litigants and licensees are left with an even vaguer notion of what “invention as a whole,” “control point,” or “beneficial use” might mean in the context of an extraterritorially-distributed system. The result will be more litigation or less transnational commerce, or both.

I. INTRODUCTION

Patent law has historically been viewed as inherently territorial.³ However, the realities of the modern world no longer fit well into this model. The territorial view is now increasingly anachronistic. As a result, the scope of the United States patent infringement statute, with respect to extraterritorial activities, has been the subject of much recent debate and litigation.⁴

The recently-heightened focus on transnational activities has resulted directly from the advance of technology and the globalization of commerce, particularly with respect to telecommunications, computing and the internet. However, the decisions to date purporting to interpret and apply the applicable statutes, including the Federal Circuit’s recent decision in *NTP, Inc. v. Research in Motion, Ltd.*,⁵ have not kept pace with economic and technological developments.⁶ More importantly, the decisions have been far from clear as to the circumstances under which a system located partially outside the United States can be held to infringe a United States patent.⁷

The extraterritorial reach of U.S. law is implicated in several provisions of 35 U.S.C. § 271, the patent infringement statute.⁸ This article focuses on “classical” direct infringement under § 271(a).⁹ The article puts forth an interpretation of the extraterritorial infringement decisions prior to, and including,

³ See e.g. Lemley et al., *Divided Infringement Claims*, 33 AIPLA Q.J. 255, 256 (2005).

⁴ See e.g. *id.*; *NTP*, 418 F.3d at 1282; *Freedom Wireless, Inc. v. Boston Commun. Group, Inc.*, 198 F. Supp. 2d 11 (D. Mass. 2002).

⁵ See e.g. 418 F.3d 1282.

⁶ *Infra* sec. I. B.

⁷ *Id.*

⁸ See generally 35 U.S.C. § 271(c), (f), (g) (2000).

⁹ Notably, § 271(f) explicitly deals with extraterritorial infringement involving shipment of components from the United States. The discussion herein is directed to the “location” of claimed components, not their origin, and thus § 271(f) is not necessarily applicable to extraterritorially-distributed systems. Section 271(g) also applies to extraterritorial activities, i.e., importation of a product made outside the U.S. by a patented process, but not to extraterritorially-distributed systems. The analysis contained herein is limited to direct infringement under § 271(a) by extraterritorially-distributed systems.

NTP with the objective of providing an analytical procedure under which any set of facts can be analyzed to make consistent predictions and determinations as to whether there is infringement under United States law.

The Federal Circuit's decision in *NTP* is doubly vexing in that it did not propound any clearly-discernible standard, while at the same time diverting from the analytical approach of established precedent. With the reality of transnationally-distributed computing and telecommunications and the need for a degree of certainty in knowing what will constitute an infringement, a more disciplined approach is critical.

Notwithstanding the Federal Circuit's cursory reliance on acknowledged precedent in *NTP*, the court actually diverted from the core rationale of all the prior decisions dealing with extraterritorially-distributed systems. The prior decisions espoused a "control point" standard.¹⁰ As applied in these prior decisions, the control point standard requires a focus on where *the invention* is located. As shown below, all of the decisions prior to *NTP* either held or recognized that the control point of a claimed invention directed to an extraterritorially-distributed system is located where the patentably distinctive aspect of the claimed system is sited.¹¹ In *NTP*, the Federal Circuit concluded that the "invention as a whole" was controlled and "beneficially used" in the United States merely because the end user was located in the United States. However, the aspects of the accused system which were located in the United States were not the patentably distinctive aspects of the claimed invention. The prior Court of Claims decision on which the Federal Circuit purportedly relied, *Decca Ltd. v. United States*,¹² stated explicitly that the location of the patentably distinctive aspect outside the United States would avoid infringement under United States law.¹³ Thus, contrary to the Federal Circuit panel's holding, *Decca* compels a conclusion of no infringement under § 271(a) on the facts of *NTP*.

In addition to failing to follow established precedent, the *NTP* decision failed to recognize the realities of transnational commerce, particularly regarding extraterritorially-distributed telecommunications systems. If the Federal Circuit had based its decision on the location of the patentably distinctive aspect of the claimed invention, pursuant to *Decca*, it would have reached the opposite result and further established a bright line rule, consistent with precedent that had been followed and relied on for nearly three decades.¹⁴ Instead, potential

¹⁰ See *Infra* sec. I. B.

¹¹ *Id.*

¹² 544 F.2d 1070.

¹³ *Id.* at 1083.

¹⁴ *Infra* sec. I. B.

litigants and licensees are left with an even vaguer notion of what “invention as a whole,” “control point” or “beneficial use” might mean in the context of an extraterritorially-distributed system.¹⁵ The inevitable result will be more litigation or less transnational commerce, or both. The *NTP* decision is thus not likely to be the last word on infringement by extraterritorially-distributed systems.

II. SCOPE OF 35 U.S.C. § 271(A) WITH RESPECT TO EXTRATERRITORIALLY-DISTRIBUTED SYSTEMS

Extraterritorial applicability of § 271(a) traces its roots to *Decca*,¹⁶ a Court of Claims case from the 1970s.¹⁷ Section 271(a) does not explicitly extend to extraterritorially-distributed systems, but it has been interpreted to extend to such systems if they are controlled from the United States.¹⁸ *Decca* was the first decision expounding the “control point” analytical approach in the context of infringement.

A. Section 271(a) of the Patent Statute

Section 271(a) of the Patent Statute, which addresses classical direct infringement, reads as follows:

(a) Except as otherwise provided in this title, whoever without authority makes, uses, offers to sell, or sells any patented invention, within the United States or imports into the United States any patented invention during the term of the patent therefore, infringes the patent.¹⁹

Thus, on its face, § 271(a) requires that the invention must be located “within the United States” to constitute direct infringement.²⁰ To be held liable

¹⁵ It has been suggested that the Federal Circuit’s *NTP* decision reflects a “locus of infringement” approach. See e.g. Lemley et al., *supra* n. 3, at 270. However to the extent such an approach does not give decisive weight to the location of the patentably distinctive aspect of the claimed invention, it is at odds with *Decca* – which the *NTP* panel purported to follow.

¹⁶ 544 F. 2d 1070.

¹⁷ *Decca* involved a determination of use by the United States under 28 U.S.C. § 1498. However, the question of use within the U.S. also was implicated because establishing direct infringement under 35 U.S.C. § 271(a) is a necessary predicate to establishing government liability under 28 U.S.C. § 1498. See *Motorola, Inc. v. U.S.*, 729 F.2d 765, 768 n.3 (Fed. Cir. 1984).

¹⁸ See e.g. *Freedom Wireless, Inc.*, 198 F. Supp. 2d at 17.

¹⁹ 35 U.S.C. § 271(a).

²⁰ *Id.*

for patent infringement under 35 U.S.C § 271(a), a patented invention must therefore have been made, used, offered for sale, or sold *within the United States* (or imported into the United States).²¹ Accordingly, direct patent infringement under § 271(a) ostensibly cannot be predicated on acts that take place in a foreign country.²² Thus, liability under § 271(a) putatively cannot be predicated on making or selling “less than a complete invention” within the United States.²³ This is the extraterritorial analogue of the “all elements rule,” i.e. the absence of even one claimed element from an accused device precludes a finding of infringement.²⁴ Location of even one claimed element outside the United States would thus seemingly preclude infringement under United States law. However, the caselaw has recognized an exception in the extraterritorial context where the “control point” of an extraterritorially-distributed system is located in the United States.²⁵

²¹ *Id.* (emphasis added).

²² See *Pellegrini v. Analog Devices, Inc.*, 375 F.3d 1113, 1117 (Fed. Cir. 2004) (“[T]he U.S. patent laws ‘do not, and were not intended to, operate beyond the limits of the United States.’” (quoting *Brown v. Duchesne*, 60 U.S. 183, 195 (1857)); *Rotec Industries, Inc. v. Mitsubishi Corp.*, 215 F.3d 1246, 1251, 1252-53 n.2 (Fed. Cir. 2000) (“§ 271(f) does not, however, change the nature of § 271(a) liability, as it provides a separate cause of action.”) (“[E]xtrajurisdictional activities . . . are irrelevant to the case before us, because ‘the right conferred by a patent under our law is confined to the United States and its territories, and infringement of this right cannot be predicated on acts wholly done in a foreign country.’” (quoting *Dowagiac Mfg. Co. v. Minn. Moline Plow Co.*, 235 U.S. 641, 650 (1915)). The Supreme Court has recognized that use of “within the United States” in the statute reflects a territorial limit of sovereignty and was intended by Congress to prevent potential conflicts with, or affronts to, foreign law or sovereignty. See *DeepSouth Packing Co. v. Laitram Corp.*, 406 U.S. 518, 531 (1972).

²³ *Rotec Industries*, 215 F.3d at 1252-53 n.2.

²⁴ *Freedman Seating Co. v. Am. Seating Co.*, 420 F.3d 1350, 1359 (Fed. Cir. 2005) (“[A]n accused product or process is not infringing unless it contains each limitation of the claim”) (citing *Warner-Jenkinson Co. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 29 (1997)), *cert. denied*, 126 S. Ct. 1167 (2006).

²⁵ *Decca Ltd.*, 544 F.2d at 1083. In a sense, § 271(a) establishes a presumption against extraterritoriality, which can be overcome by a showing that the invention is controlled from the U.S. Compare Christopher A. Harkins, *Overcoming the Extraterritorial Bar to Bringing Copyright Actions: On Pleading Copyright Infringement to Protect Copyrighted Works From the Defendant That Ships Overseas for Distribution Abroad*, 17 *Intell. Prop. & Tech. L.J.*, n. 6, pp. 1, 2 (May 2005) (pointing out that the Supreme Court has held that the Copyright Act has no extraterritorial effect but arguing for an exception to the rule).

**B. *Development Of The Control Point Standard With Respect To
Infringement By Extraterritorially-Distributed Systems
Under § 271(a)***

Notwithstanding the “all elements rule” and the express language of 35 U.S.C. § 271(a), established precedent has held that a transnational system extending beyond the United States border can satisfy the territoriality requirement of United States infringement law if the system’s “control point” is located within the United States.²⁶

Liability for infringement under 35 U.S.C § 271(a) for extraterritorially-distributed systems has depended strongly on the facts of each case. However, even though extraterritorial infringement determinations are highly fact-specific, it is clear that a transnational system cannot satisfy the territoriality requirement of United States patent law unless the components of the system located in the United States control the rest of the system from the United States.²⁷ There is no disagreement as to the “control point” requirement of the caselaw. There is substantial disagreement, however, as to the definition of “control point.”²⁸ This disagreement and misapprehension of earlier cases has effectively made it impossible to predict the outcome in any given factual scenario. The Federal Circuit’s decision in *NTP*, by misapplying *Decca*, added further confusion to an already difficult area of the law. The decisions prior to *NTP*, all of which emanate from *Decca*, contain a common theme – control from the United States was held to constitute infringement under United States law only where such control related to the patentably distinctive aspect of the claimed system. The confusion and inconsistency resulting from *NTP* can be entirely eliminated by strictly following the patentable distinctiveness dictate of *Decca*.

1. Earlier Cases Applying A Control Point Analysis

a. *Decca Ltd. v. U.S.*

In *Decca*,²⁹ a case brought under 28 U.S.C. §1498 (compensation for U.S. Government use), which also implicated 35 U.S.C. § 271(a), the United

²⁶ *Decca Ltd.*, 544 F.2d at 1083.

²⁷ *Id.*

²⁸ See e.g., Lemley et al., *supra* n. 3; Daniel P. Homiller, *From Deepsouth to the Great White North: The Extraterritorial Reach of United States Patent Law After Research In Motion*, Duke L. & Tech. Rev. 0017 (2005).

²⁹ 544 F.2d at 1074.

States Court of Claims considered a transnational navigational system for ships and aircraft that required the simultaneous use of at least three radio broadcast stations, two of which were located in the United States and one of which was located in Norway.³⁰ The court found that, although part of the navigational system was located outside the United States, the “master station” was located within the United States.³¹ The master station coordinated, monitored and synchronized the system.³² The court concluded that, because the system was controlled from the United States and the “beneficial use” of the system was within the United States, the system was within the United States for purposes of infringement under § 271(a).³³ Notwithstanding the *Decca* court’s use of rather nondefinitive “control point” and “beneficial use” language in explaining its decision, critical to the court’s conclusion was an identification of the location of the patentably distinctive aspect of the claimed invention. It is abundantly clear that the *Decca* opinion was based on the fact that the patentably distinctive aspect of the invention was practiced in the United States:

*[T]he patentees’ contribution was not in the manner by which a transmitter generated and radiated the signals, but rather it was in a system in which signals having a particular relationship were received from spaced sources and utilized in the receiver to arrive at a position fix. Had it been otherwise, that is, had the invention dealt with the generation of the signals themselves, it seems clear that utilization of those signals in this country would only have been incidental and that operation of the Norwegian station would have been beyond the reach of the U.S. patent laws.*³⁴

As the decision itself stated, *Decca* would have been decided differently had the patentably distinctive aspect of the invention been located outside the United States.³⁵ If that had been the case, the use “in this country would only have been *incidental* and [] operation of the Norwegian station would have been beyond the reach of the U.S. patent laws.”³⁶ Thus, *Decca* should be understood

³⁰ *Id.*

³¹ *Id.*

³² *Id.* (The *Decca* decision adopted findings and conclusions of a trial judge, which were incorporated in their entirety except for a sentence regarding U.S.-flagged vessels.)

³³ *Id.* at 1083 (“[I]t is obvious that, although the Norwegian station is located on Norwegian soil, a navigator employing signals from that station is, in fact, ‘using’ that station and such use occurs wherever the signals are received and used in the manner claimed.” The court considered particularly significant “the ownership of the equipment by the United States, the control of the equipment from the United States and . . . the actual beneficial use of the system within the United States.”)

³⁴ *Id.* (emphasis added).

³⁵ *Id.*

³⁶ *Id.* (emphasis added).

to require a determination of the location of the control point of the *claimed invention* not the location of any control point of other, non-distinctive aspects of the claimed system.

b. *Rosen v. NASA*

The court in *Decca* borrowed its method of analysis from *Rosen v. NASA*,³⁷ a United States Patent Office Board of Appeals and Interferences decision.³⁸ Although the issue in *Rosen* was reduction to practice (i.e., where the invention was first made) rather than extraterritorial infringement, the case was factually similar to *Decca* in that it involved a navigational device for spacecraft.³⁹ In both *Rosen* and *Decca*, the claimed navigational system included multiple satellites in space which were monitored from a control station (i.e., a coordination and monitoring station) located in the United States.⁴⁰ In *Rosen*, the Board viewed the claimed navigational device as a single “integrated system” and concluded that the location of the system should be based on the location of the system’s “control point.”⁴¹ The Board paid particular attention to the fact that a “control point” was recited in the subject claims.⁴² Because the system’s control point was in the United States, the Board ruled that the satellite system had been reduced to practice in the United States.⁴³ Since *Rosen* was a case dealing with reduction to practice, the focus was necessarily on where the invention was first made.⁴⁴

³⁷ 152 U.S.P.Q. 757, 768 (B.P.A.I. 1966).

³⁸ *Decca Ltd.*, 544 F.2d at 1074 (following *Rosen* for its “holding that an invention concerning space satellites was reduced to practice in the United States because of the location of control stations here”).

³⁹ *Rosen*, 152 U.S.P.Q. at 758-59.

⁴⁰ Compare *Decca Ltd.*, 544 F.2d at 1075-76 with *Rosen*, 152 U.S.P.Q. at 759.

⁴¹ 152 U.S.P.Q. at 768-69.

⁴² *Id.*

⁴³ *Id.*

⁴⁴ *Decca*’s reliance on *Rosen* to support its patentable distinctiveness analysis is thus perfectly understandable and justified. Although reduction to practice requires the presence of every claimed element, the primary focus should be on the novel aspect because the non-novel aspect already existed in the prior art.

c. *Hughes Aircraft Co. v. U.S.*

In *Hughes Aircraft Co. v. U.S.*,⁴⁵ the Court of Federal Claims considered whether operation of a number of spacecraft incorporating the claimed attitude control apparatus constituted infringement of a United States patent.⁴⁶ Like *Decca*, *Hughes Aircraft* dealt ostensibly with whether a system located partially outside the U.S. can be a “use” of an invention under 28 U.S.C. § 1498 (i.e., compensation for Government use).⁴⁷ However, as in all § 1498 cases, the determination implicated the territoriality requirement of 35 U.S.C. § 271(a).⁴⁸ The court found, with respect to one of the spacecraft, the “Ariel 5,” that there was no infringing use in the United States.⁴⁹ The Ariel 5, which was built in England and launched into space from Kenya by a team of Italian engineers, was designed to perform scientific experiments from space.⁵⁰ One of those experiments was sponsored by the United States and involved monitoring the sky for transient x-ray phenomena and then transmitting the data to a NASA station in the United States for analysis.⁵¹ Despite the fact that the NASA station provided tracking and data acquisition services for the x-ray experiment, the court found that the claimed invention had not been used within the United States.⁵²

The *Hughes Aircraft* court relied on three factors in holding that the invention at issue had not been used within the United States. First, the extraterritorial spacecraft had never entered the United States but merely transmitted data signals to NASA.⁵³ Second, there was “an absence of direct control from United States territory.”⁵⁴ Third, and stated as being the most important factor, “unlike the facts in *Decca* and *Rosen*, the ‘control point’ or ‘master station’ . . .

⁴⁵ 29 Fed. Cl. 197 (1993).

⁴⁶ *Id.* at 242-43.

⁴⁷ *Id.*

⁴⁸ See *Motorola*, 729 F.2d at 768 n. 3 (use under 28 U.S.C. § 1498 is based on infringement under 35 U.S.C. § 271(a)); see also *NTP, Inc.*, 418 F.3d at 1316 (“direct infringement under Section 271(a) is a necessary predicate for government liability under Section 1498”); accord *Zoltek Corp. v. U.S.*, ___ F.3d ___, WL 827304 (Fed. Cir. Mar. 31, 2006) (per curiam opinion accepting the “NTP proposition,” i.e., that infringement under § 1498 requires a showing of 271(a) infringement, as binding precedent but, in one concurring opinion, expressing doubt as to a logical connection between §§ 271(a) and 1498).

⁴⁹ See *Motorola*, 729 F.2d at 768 n. 3.

⁵⁰ *Hughes Aircraft*, 29 Fed. Cl. at 242.

⁵¹ *Id.*

⁵² *Id.* at 243.

⁵³ *Id.* at 242 (italics added).

⁵⁴ *Id.*

was not located in the United States.”⁵⁵ The court concluded that “[a]lthough [NASA’s] Goddard Space Center was the central communications link for tracking and data acquisition services, the ‘control point’ for the spacecraft itself was in England.”⁵⁶ Further “NASA’s role was limited to providing a data communications link”⁵⁷ The court stated that it would have held differently if the control of the spacecraft had been performed from the United States:

If the United States government had actually originated the commands within the United States and then transmitted those commands to the satellite through its STDN system, we would find “use” within the United States. The fact that those functions were separated, with the government providing only tracking and data acquisition services, undercuts plaintiff’s argument that the patent was used within United States territory.⁵⁸

Thus, because the spacecraft, and hence the claimed control system, did not have a domestic control point, it was held not to have been used within the United States and thus could not constitute infringement under United States law.⁵⁹ There was no infringement under United States law even though the government provided tracking and data acquisition services outside the United States for purposes of controlling the spacecraft.⁶⁰ Notably, the United States government appeared to have provided tracking and data acquisition services for both the x-ray experiments and control of the spacecraft, but only the x-ray experiments were controlled from the United States.⁶¹

The *Hughes Aircraft* court did not explicitly state that the United States government did not control the actual claimed invention, but that was clearly the basis for the decision. The critical fact in *Hughes Aircraft* was that the invention was directed to an attitude control system, not the x-ray experiments for which NASA provided tracking and data acquisition services and which appear to have been controlled from the United States.⁶² The claimed invention involved controlling the attitude of the spacecraft and that control was centered in

⁵⁵ *Id.*

⁵⁶ *Id.*

⁵⁷ *Id.*

⁵⁸ *Id.*

⁵⁹ *Id.*

⁶⁰ *Id.*

⁶¹ *Id.* at 242-43.

⁶² The patent claims at issue in *Hughes Aircraft* were directed to “an apparatus for controlling the attitude of the spin axis of a spin-stabilized spacecraft.” *Id.* at 203. “In the [] invention, the spacecraft is ‘dumb’; the logic function is performed by ground controllers.” *Id.*

England, not the United States.⁶³ The holding of *Hughes Aircraft* was thus a proper application of the *Decca* patentable distinctiveness standard.

2. Recent Cases Espousing the Control Point Standard

a. *Freedom Wireless, Inc. v. Boston Communications Group, Inc.*

In *Freedom Wireless, Inc. v. Boston Communications Group, Inc.*,⁶⁴ a prepaid wireless service was provided by the defendant, Rogers Wireless (“Rogers”), to its customers through use of Boston Communications Group’s (“BCGI”) billing system.⁶⁵ The asserted patent claims covered a prepaid wireless telecommunications system and method.⁶⁶

Defendant Rogers was a Canadian company that sold wireless equipment and services exclusively to Canadian residents.⁶⁷ To provide prepaid wireless services to its customers, Rogers contracted with co-defendant BCGI to provide prepaid billing services as part of its prepaid wireless service.⁶⁸

The Rogers prepaid wireless service was operated in the following manner: a prepaid wireless customer first placed a telephone call by dialing a destination phone number and pressing the send key on the telephone.⁶⁹ That call, along with signaling information including the caller’s identifying phone number, was received in Canada by one of Rogers’ radio towers and then transmitted to one of Rogers’ mobile telephone switching offices, also located within Canada.⁷⁰ The mobile telephone switching office then identified the call as coming from a prepaid subscriber and rerouted the call to a BCGI receiving station located in Canada.⁷¹ Once the BCGI receiving station in Canada received the call forwarded by Rogers, it would send the call, along with information relating to the caller’s identity and location, to the BCGI central database in Massachusetts.⁷² The BCGI database, which stored current information relating

⁶³ *Id.* at 243.

⁶⁴ 198 F. Supp. 2d 11.

⁶⁵ *Id.* at 13.

⁶⁶ *Id.* at 14.

⁶⁷ *Id.* at 13.

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ *Id.*

⁷² *Id.* at 13-14.

to the caller's prepaid account balance, would then check the caller's current prepaid account balance, determine the cost of the requested call, calculate the maximum duration for the call, and send this information back to the BCGI receiving station in Canada.⁷³ Finally, the BCGI Canadian receiving station would forward the call, along with the information collected from the database in Massachusetts, back to Rogers' mobile telephone switching office so the call could be connected.⁷⁴

The court in *Freedom Wireless* held that the fact that the BCGI database in Massachusetts was an "essential" component of Rogers' prepaid wireless system was not sufficient to warrant a finding that Rogers used the system within the United States.⁷⁵ The court held that, although the system required that calls be transferred from the BCGI receiving station in Canada to the BCGI database in Massachusetts for billing services, the BCGI database was not the system's control point.⁷⁶ The court opined that,

[u]nlike the master station in *Decca* and the control point in *Rosen*, the BCGI database did not direct, control, or monitor Rogers' prepaid wireless system in any way. Rather, the database received calls that were transmitted from Canada, analyzed the calls to determine if and for how long they could remain connected, and returned the calls, along with the acquired information, back to Canada.⁷⁷

The court in *Freedom Wireless* observed that "the database more closely resembled the domestic 'central communications link for tracking and data acquisition services' in *Hughes [Aircraft]*"⁷⁸ In *Hughes Aircraft*, the domestic link was not the system's control point because its "role was limited to providing a data communications link," while "the United Kingdom assumed the responsibility for controlling the device."⁷⁹ Notably, the asserted patent claims in *Hughes Aircraft* were directed to an attitude control system, not the spacecraft itself or the data communications link associated with the U.S.-sponsored experiments.⁸⁰ "Similarly, the role of the BCGI database was limited to analyzing

⁷³ *Id.* at 14.

⁷⁴ *Id.*

⁷⁵ *Id.* at 17.

⁷⁶ *Id.*

⁷⁷ *Id.* (citations omitted).

⁷⁸ *Id.*

⁷⁹ *Id.* (quoting *Hughes Aircraft*, 29 Fed. Cl. at 242-43).

⁸⁰ *Hughes Aircraft*, 29 Fed. Cl. at 203.

the rerouted calls and transmitting billing information.”⁸¹ It did not direct, control, or monitor the rest of the defendant’s prepaid wireless system.⁸²

The court in *Freedom Wireless* also observed that the control point, if any, appears to have been Rogers’ network of mobile telephone switching offices in Canada.⁸³ It was there that calls designated as prepaid were identified, directed to the BCGI receiving stations for billing services, and then connected through the Canadian local carrier.⁸⁴ The court further observed that, unlike the BCGI database in Massachusetts, which merely analyzed the calls for billing information, Rogers’ mobile telephone switching offices actually processed the calls and ensured their completion.⁸⁵ Thus, these extraterritorial mobile telephone switching offices were the instrumentalities that directed, controlled, or monitored the patented system:

Unlike *Decca* or *Rosen*, this is not a situation where the defendant is a United States resident engaging in the “operation of an integrated instrumentality, a substantial portion of which is within the United States, and which is operated by and for the residents of the United States.” Instead, this is a case where the defendant was a Canadian resident operating a system exclusively for the benefit of Canadian residents, the substantial portion of which was located within Canada. In other words, this was a Canadian system that happened to extend into the United States, not a domestic system that happened to extend into Canada.⁸⁶

In distinguishing *Decca*, the court focused on the location of Rogers’ customers and the fact that the wireless network itself was located in Canada.⁸⁷ However, although not stated explicitly nor relied on by the court, as discussed below, it is apparent that the advance over the prior art of the claimed Freedom Wireless system was not associated with the database. The court’s holding in *Freedom Wireless* was thus consistent with the *Decca* patentable distinctiveness rationale, even though the court apparently did not appreciate the rationale.

In discussing a prior art system, the Freedom Wireless patents clearly state that storing, accessing and authenticating account information in a database is not the novel aspect of the claimed invention:

⁸¹ *Freedom Wireless*, 198 F. Supp. 2d at 17.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ *Id.*

⁸⁵ *Id.*

⁸⁶ *Id.* at 17-18 (citations and footnote omitted).

⁸⁷ *Id.*

Account authentication and credit balance checking is accomplished by local area network connection with a service management computer which manages a card database containing account information for each outstanding account card [T]he host computer compares the available card balance against the balance required to make a one minute call to the desired destination.⁸⁸

The '067 patent further states:

The present invention allows a pre-paid user to access the cellular telecommunication system and have authentication and accounting occur transparently without any preliminary input by the user. The present invention accomplishes this by using the [automated number identification code] as the file link to identify and authenticate the cellular telephone against the database. Thus, cellular telephone users are freed of the need to carry and use cards, are freed of the need to enter account information as a first step in the authentication process and the possibility of fraud on the cellular service providers is minimized.⁸⁹

Thus, the database account balance functionality was known in the prior art whereas the elimination of initial user authentication through use of an automated number identification code was not. The functionality associated with the automated number identification code-based user verification was performed outside the United States using account balance information retrieved from the United States.⁹⁰ Therefore, the patentably distinctive aspect of the claimed invention was located outside the United States. The database functionality was merely “incidental” under the *Decca* standard and was properly held not to warrant application of United States patent infringement law.

The court apparently did not rely on a classical claims construction analysis in reaching its decision but may have implicitly done so. In any event, the court reached the correct result based on *Decca* – even if its reasoning may have been flawed. The patentably distinctive aspect of the claimed invention was to use an automated number identification code to identify and authenticate a user’s cell phone so that the user was not required to enter account information as a first step in the authentication process. The database containing account balance information, although recited in the claims, was known in the prior art and was thus not the patentably distinctive aspect of the alleged invention.⁹¹

⁸⁸ E.g. U.S. Pat. No. 5,722,067 (issued Feb. 24, 1998), col. 2, ll. 13-29 (hereinafter ‘067 patent).

⁸⁹ *Id.* at col. 4, ll. 19-28.

⁹⁰ *Freedom Wireless*, 198 F. Supp. 2d at 13-14.

⁹¹ See e.g. ‘067 patent, col. 2, ll. 13-19, col. 4, ll. 19-28.

b. *Solaia v. Arvinmeritor*

In *Solaia Technology LLC v. Arvinmeritor, Inc.*, the U.S. District Court for the Northern District of Illinois held that the court had subject matter jurisdiction of a patent infringement claim over a Canadian company whose pipeline extended into the United States even though the pipeline was controlled from Canada.⁹² In contrasting the facts of *Freedom Wireless*, the court grounded its decision on the location of *the invention*, not the location of the system as a whole, nor the control point of the system as a whole, stating:

[*Freedom Wireless*] involved the transmission of cell phone calls from towers in Canada, then into the United States, and then back into Canada. The allegedly infringing activity in the United States could not be separated from the activity in Canada, for if no phone call was initiated and transmitted to the towers in Canada, no infringing activity could take place in the United States. As a result, the court determined that the “control point” for the infringing activity was located in Canada and granted a motion for summary judgment of noninfringement. In contrast, in the instant case, infringing activity allegedly takes place entirely within the United States. *Although the control point for the pipeline itself is indeed located in Canada* (and is run by nonparty Enbridge Pipelines, Inc.), Solaia has produced facts showing that Enbridge Energy Company, Inc. infringes on its patents by using programmable logic controllers in valves in the pipeline located in the United States and that some of the control computers for these controllers are located within the United States. *The infringement in this case is related to the programmable logic controllers, not to the pipeline itself.* Because some infringement is taking place entirely within the United States, this Court has subject matter jurisdiction pursuant to 28 U.S.C. § 1338(a) and Enbridge Energy Company Inc.’s motion [to dismiss for lack of subject matter jurisdiction] is denied with prejudice.⁹³

The defendant argued that a “control point test” should apply and that under such test its system did not infringe because it was controlled from Canada.⁹⁴ The court summarily disposed of the defendant’s contention by focusing on the location of control of the actual invention.⁹⁵ The pipeline was not the

⁹² *Solaia Tech. LLC v. Arvinmeritor, Inc.*, 2003 U.S. Dist. LEXIS 17413, *9 (N.D. Ill. Sept. 29, 2003) (suit dismissed for lack of personal jurisdiction, but subject matter jurisdiction existed).

⁹³ *Id.* at **11-12 (emphasis added, citations omitted).

⁹⁴ *Id.* at *10.

⁹⁵ *Id.* at *11 (“Solaia has alleged sufficient facts to indicate that an infringing act may be taking place within the United States. Solaia has alleged that Enbridge Energy Company, Inc. has used infringing programmable logic controllers wholly within the United States and independent of any control point located in Canada.”).

invention and the infringement was entirely manifested in the programmable logic controllers located within the United States.⁹⁶ This decision was thus a proper application of the *Decca* patentable distinctiveness standard.

3. *Decca* and its Progeny Require a Focus on the Patentably Distinctive Aspect of the Claimed Invention, Not on Aspects Known in The Prior Art

Decca, *Hughes*, *Freedom Wireless*, and *Solaia* were all decided in a manner consistent with the view that the location of the claimed *invention* is determinative in a § 271(a) analysis. *Decca* explicitly stated this rationale and the other three cases implicitly applied it. Moreover, the *Rosen* decision, cited as support in *Decca*, related to reduction to practice of an invention directed to navigation of spacecraft which, of necessity, was controlled from a location within the U.S.

In an extraterritorially-distributed system, the *Decca* rationale requires that the location of the patentably distinctive aspect of the claimed system is the location of the invention for purposes of § 271(a). Any other interpretation of the “control and beneficial use” standard of *Decca* results in inconsistent and unpredictable ad-hoc determinations – as made abundantly clear by the erroneous result in the *NTP* decision.

III. *NTP V. RIM* MISAPPLIED THE CONTROL POINT ANALYSIS OF *DECCA*

In *NTP*, the Federal Circuit’s most-recent exposition on the extraterritorial scope of § 271(a), infringement was held to have occurred even though at least one critical element of the claimed invention was located in Canada.⁹⁷ The asserted claims were directed to an integrated wired and wireless email system.⁹⁸ Wireless handheld devices and desktop redirector software were provided by RIM to United States users.⁹⁹ However, the “interface” switch in the RIM system, which connected wired and wireless email systems, was located in Canada.¹⁰⁰ As discussed below, the Federal Circuit’s failure to apprehend the basis for the holding of *Decca* resulted in an erroneous ruling in *NTP*.

⁹⁶ *Id.* at *12.

⁹⁷ *NTP, Inc.*, 418 F.3d at 1317.

⁹⁸ *Id.* at 1290.

⁹⁹ *Id.* at 1289.

¹⁰⁰ *Id.* at 1289-90.

A. *NTP's Patents Were Allowed Based on the Function of the Interface Switch, Which Was Located Outside the United States in the RIM System*

RIM was accused of infringing five patents (“the Campana patents”) directed to “integrating existing electronic mail systems . . . with radio frequency (“RF”) wireless communication networks.”¹⁰¹ The applicant made clear in the prosecution history that the Campana invention was the integration of existing electronic mail systems with a RF network by asserting:

Zabarsky et al. clearly do not teach the combination of an electronic mail system with *an interface switch which provides for transmission of messages originating with a processor within an electronic mail system to exit the electronic mail system and be transmitted through an RF information transmission system* to a receiver which transfers the originated information to a destination processor in the electronic mail system. The point is that *there is nothing in Zabarsky et al. that teaches or is analogous* to the claimed combination of an electronic mail system and a wireless system for the purpose of delivering messages originating in the electronic mail system with an originating processor to a destination processor in the electronic mail system by *exiting the electronic mail system through an interface switch which connects to an RF information transmission network* which transfers the originated information to the destination processor via a receiver.¹⁰²

NTP unquestionably distinguished the prior art as not describing the all-important interface switch, submitting:

[T]hat a reasonable interpretation of Zabarsky et al. is that they *do not disclose an interface switch* between an electronic mail system and an RF information transmission system anything analogous to the interface switch which connects an electronic mail system to an RF information transmission network.¹⁰³

The interface switch was not simply an important element of the claimed Campana system; it was the “critical” element. As stated by the Examiner, and undisputed by the applicant, the interface switch was the aspect of the system that lent patentability to the claims because:

Although not specifically disclosed by Zabarsky et al., it is fully disclosed by Andres [sic: Andros] et al. that the address or identification number of a receiving switch is added to the message being transmitted. (See fig. 3, items 66, 78). Further, since *the critical aspect of the invention is the [sic] route the*

¹⁰¹ *Id.* at 1287. The asserted Campana patents were 5,436,960; 5,625,670; 5,819,172; 6,067,451; 6,317,592, all of which derived from the same initial application and thus contained the same written description. *Id.* at 1287-88.

¹⁰² Amend., U.S. App. Ser. No. 07/702,939, Nov. 7, 1994, 21 (emphasis added).

¹⁰³ *Id.* at 21-22 (emphasis added).

*data message to the destination processor, claiming the identification code is added at different points of the system lacks criticality.*¹⁰⁴

The Examiner thus clearly stated that the message routing function was the critical aspect of the invention. The patent description shows that the message routing function was performed by the interface switch.

The present invention *transmits electronic mail from an originating processor to at least one destination processor through an interface switch. The interface switch connects an electronic mail system and/or at least one additional processor to a RF data transmission network which transmits the information to a RF receiver which is connectable to the destination processor to transfer the received RF message from the RF receiver to the destination processor.*

[T]he interface switches 304 function as a security check to determine that information transmissions originating from a gateway switch with mailbox 14 represent transmissions which should be coupled to a hub switch 116 of the RF information transmission network 302 The interface switch 304 also removes information added by the electronic mail system 1-N to the information from the originating processor A-N from the stored information received from one of the gateway switches 14 and adds information used by the RF information transmission network 302 during transmission of the information originated at the originating processor to a RF receiver 119 in the RF information transmission network 302 which receives the information and transfers it to the destination processor A-N.¹⁰⁵

The Examiner did not view the assignment of destination addresses as *critical to the invention*. The message routing function referred to by the Examiner was clearly the routing of messages between fixed and wireless systems through the interface switch.¹⁰⁶ The assignment of destination addresses was known in prior art fixed and wireless email systems and did not lend patentable significance to the claims.¹⁰⁷ The assignment of a destination address by either

¹⁰⁴ Off. Action, App. Ser. No. 07/702,939, Apr., 19, 1994, 5.

¹⁰⁵ U.S. Pat. No. 5,436,960, col. 19, ll. 11-19, col. 25, ll. 5-26 (emphasis added).

¹⁰⁶ As discussed below, the Federal Circuit panel also recognized that the routing function described by the patents referred to the routing of information between fixed and wireless systems via the interface switch. *NTP, Inc.*, 418 F.3d at 1290 (“[T]he message travels through the BlackBerry Relay, where it is translated and routed from the processors in the user’s email system to a partner wireless network.”).

¹⁰⁷ Off. Action, App. Ser. No. 07/702,939, Apr., 19, 1994, 5; *NTP, Inc.*, 418 F.3d at 1287 (“Traditional email systems . . . such as Microsoft Outlook™, Eudora™, or Hotmail™ . . . [organize] and [display] a user’s email message and [provide] the user with a means of copying and sending email messages.”).

a fixed or wireless processor thus could not have lent patentable significance to the claims.

With regard to the Examiner's characterization of the critical aspect of the invention as the routing function of the interface switch, the applicant responded that "[t]he citation of Andros et al [sic] is noted. However, Andros et al [sic] do not pertain to an electronic mail system."¹⁰⁸ The applicant did not take issue with the Examiner's characterization of the critical aspect of the invention, instead they distinguished the Andros reference as not pertaining to electronic mail systems. Thus, the applicant acquiesced in the Examiner's characterization of the critical aspect of the invention as the routing function – the function of the interface switch. Without the interface switch, there would have been no patentable invention. And without a patentable invention, there would have been no infringement. It is thus not unreasonable to conclude that, under *Decca*, locating the patentably distinctive aspect of the claimed system outside the United States should avoid infringement under United States law.

B. The Holding of NTP Is Inconsistent with Decca and its Progeny

Notwithstanding the teaching of the Campana patents, the statements of the Examiner as to the patentably distinctive aspect of the claimed invention, and the Federal Circuit panel's own recognition that the patentably distinctive aspects of the claimed invention were associated with the interface switch, the Federal Circuit held that the system claims were infringed because the end users were located in the United States, stating that "[w]hen RIM's United States customers send and receive messages by manipulating the handheld devices in their possession in the United States, the location of the use of the communication system as a whole occurs in the United States."¹⁰⁹ Purporting to rely on the holding of *Decca* with respect to "control" of the system, the Federal Circuit opinion stated that "RIM's customers located within the United States controlled the transmission of the originated information and also benefited from such an exchange of information."¹¹⁰

As explained above, however, "transmission of the originated information" was not the "critical aspect of the invention." The critical aspect of the invention was routing messages between fixed and wireless systems through an

¹⁰⁸ Second Supp. Amend., App. Ser. No. 07/702,939, May 13, 1994, 24.

¹⁰⁹ *NTP, Inc.*, 418 F.3d at 1317.

¹¹⁰ *Id.*

interface switch.¹¹¹ The Federal Circuit thus apparently failed to appreciate that its decision was based on the location of non-critical elements of the claimed invention within the United States. As discussed below, this misapprehension produced a decision at odds with the core holding of *Decca*, the decision relied on by the *NTP* panel to support its conclusion. Despite abundant evidence, which was before both the trial court and the Federal Circuit, indicating that the patentably distinctive aspect of the claimed system was outside the United States, both courts held that the claims were infringed under § 271(a).¹¹²

The Federal Circuit panel relied on *Decca* for the proposition that “[t]he use of a claimed system under [S]ection 271(a) is the place at which the system as a whole is put into service, i.e., the place where control of the system is exercised and beneficial use of the system obtained.”¹¹³ Based on its understanding of *Decca*, the Federal Circuit concluded that RIM’s customers located in the United States controlled the transmission of the originated information and also benefited from the exchange of information.¹¹⁴ The court further stated that when United States RIM customers send and receive messages by manipulating their handheld devices in the United States, the location of the use of the communication system as a whole occurs in the United States.¹¹⁵

The Federal Circuit misapplied *Decca*. As discussed above, the *Decca* opinion was grounded on the fact that the patentably distinctive aspect of the invention was practiced in the United States.¹¹⁶ Conversely, the patentably distinctive aspect of the claimed Campana system at issue in *NTP*, as stated by the Federal Circuit in its opinion, was the integration of existing fixed and wireless email systems.¹¹⁷ The integration of fixed and wireless email systems was performed by RIM’s BlackBerry Relay, which was located in Canada.¹¹⁸ The pat-

¹¹¹ Off. Action, App. Ser. No. 07/702,939, May 19, 1994, 5.

¹¹² *Id.*; *NTP, Inc., v. Research In Motion, Ltd.*, 261 F. Supp. 2d 423, 436-37 (E.D. Va. 2002).

¹¹³ *NTP, Inc.*, 418 F.3d at 1317; *Decca Ltd.*, 544 F.2d at 1083.

¹¹⁴ *NTP, Inc.*, 418 F.3d at 1317.

¹¹⁵ *Id.*

¹¹⁶ *Decca Ltd.*, 544 F.2d at 1083 (“[T]he patentees’ contribution was . . . a system in which signals having a particular relationship were received from spaced sources and utilized in the receiver to arrive at a position fix. Had it been otherwise, . . . it seems clear that utilization of those signals in this country would only have been incidental and that operation of the Norwegian station would have been beyond the reach of the U.S. patent laws.”).

¹¹⁷ *NTP, Inc.*, 418 F.3d at 1289 (“Campana’s particular innovation was to integrate existing electronic mail systems with RF wireless communications networks”).

¹¹⁸ *Id.* at 1290 (“[T]he message travels through the BlackBerry Relay, where it is translated and routed from the processors in the user’s email system to a partner wireless network.”).

entably distinctive aspect of the Campana patents was not sending messages from wireless receivers. Of particular significance is the court's observation that the function of the BlackBerry handheld devices did not implicate the patentably distinctive aspect of the asserted Campana patent claims: "The patents-in-suit do not disclose a method for composing and sending messages from the RF receiver."¹¹⁹ As discussed above, the Campana patent description and prosecution history are abundantly clear that the patentably distinctive aspect of the invention was the integration of existing electronic mail systems with an RF network. This integration was performed by the interface switch. NTP distinguished the prior art as not describing an interface switch. Thus, the patentably distinctive aspect of the asserted claims (which include the interface switch limitation), i.e., the integration of fixed and wireless, was located in Canada.¹²⁰

As pointed out in the Federal Circuit opinion, the patents-in-suit did not encompass composing and transmitting messages from a handheld RF device.¹²¹ But the court nonetheless based its decision on just such an assumption when it stated that "RIM's customers located within the United States controlled the transmission of the originated information and also benefited from such an exchange of information"¹²² This is at odds with the court's own recognition that neither transmission of information, nor exchange of information from a RF receiver, was the patentably distinctive aspect of the claimed invention.¹²³ The patentably distinctive aspect also did not involve creation and transmission of information between an originating and destination processor in a traditional fixed email system. Those functions were known in numerous prior art systems.¹²⁴ The inventive contribution, if any, was in the integration (and hence control) of the transmitted information between wired and RF systems. In the RIM system, this integration and control was performed in Canada.¹²⁵

The erroneous application of *Decca* may have been caused by the particular facts of *NTP*. The prevalence of BlackBerry handheld receivers in the United States might understandably lead the casual observer to conclude that the RIM system must operate within the United States. The Federal Circuit panel

¹¹⁹ *Id.* at 1289.

¹²⁰ *Id.* at 1290.

¹²¹ *Id.*

¹²² *Id.* at 1317.

¹²³ *Id.* at 1289.

¹²⁴ *See id.* at 1287 ("Traditional email systems . . . such as Microsoft Outlook™, Eudora™, or Hotmail™ . . . [organize] and [display] a user's email message and [provide] the user with a means of copying and sending email messages.").

¹²⁵ *Id.* at 1290.

appears to have been misled by this fact as well.¹²⁶ The *NTP* panel focused intently on the use of the handheld devices in the United States, stating that “[w]hen RIM’s United States customers send and receive messages by manipulating the handheld devices in their possession in the United States, the location of the use of the communication system as a whole occurs in the United States.”¹²⁷ In so doing, the court failed to appreciate that the use of the handheld devices to compose, send, and receive messages was not an advance over the prior art and that, under *Decca*, such use should not have warranted application of United States law.¹²⁸ Nor did use of the desktop software supplied by RIM to United States users involve practice of any novel aspect of the claimed system. The desktop “redirector” software did no more than forward email to the BlackBerry Relay (the feature of the RIM system corresponding to the claimed interface switch):

When new mail is detected in the desktop solution, the desktop redirector is notified and retrieves the message from the mail server. It then copies, encrypts, and routes the message to the BlackBerry “Relay” component of RIM’s wireless network, which is located in Canada.¹²⁹

Neither the BlackBerry handheld nor the Desktop Redirector software (BlackBerry Enterprise Server) performed the patentably distinctive function of the claimed system, i.e., integration of fixed and wireless systems. That did not happen until the message arrived at the Relay.¹³⁰ Moreover, there is no modification of an existing email system to facilitate use of RIM’s BlackBerry system because:

¹²⁶ There is no discernible indication from the available record that the patentable distinctiveness requirement of *Decca* was argued at either the trial or appellate level in *NTP*. Nor was the argument made in the request for certiorari. However, the *Decca* decision was clear on this point and should have been appreciated by the trial and appellate courts, particularly in view of the above-cited characterizations of the critical aspect of the invention as the integration of fixed and wireless systems.

¹²⁷ *Id.* at 1317.

¹²⁸ Curiously, a different panel of the Federal Circuit appears to have also misapprehended the nature of both the *NTP* patents and the RIM system. See *Union Carbide Chems. & Plastics Tech. Corp. v. Shell Oil Co.*, 425 F.3d 1366, 1380 (Fed. Cir. 2005) (“This court in *NTP* also affirmed a finding of infringement under § 271(a) for RIM’s domestic sales of devices (BlackBerries) used in the process.”). In addition to failing to appreciate that the *NTP* decision did not hold infringement of method claims, the *Union Carbide* decision confirmed that the location of handhelds in the U.S. was the basis for the *NTP* decision, a basis which was improper under *Decca* as discussed above.

¹²⁹ *NTP, Inc.*, 418 F.3d at 1289-90.

¹³⁰ *Id.* at 1290 (“[T]he message travels through the BlackBerry Relay, where it is translated and routed from the processors in the user’s email system to a partner wireless network.”).

[T]he BlackBerry email redirector software merges seamlessly with the user's existing email system. The operation of the email redirector software is transparent to the user's desktop email client and the organizational user's mail server. That is, *the user's email system does not recognize or incorporate the BlackBerry wireless system into its operation.*¹³¹

Further, the function of the interface switch cannot be imputed to the originating processor located in the United States. As the Federal Circuit pointed out, the originating processor is separate from the interface switch because:

[T]here is nothing in the written description to suggest that one skilled in the art would blur the distinction between a component such as a gateway switch that sometimes "originates" address information, and an "originating processor," which is a separately labeled and separately claimed component than a gateway switch or an interface switch.¹³²

[T]he "originating processor" is the sole processor that initiates the transmission of the electronic mail message text into the electronic mail system and is separate from the gateway or interface switches.¹³³

Thus, the function of the interface switch cannot be conflated with the function of the originating processor merely because the two separate instrumentalities process the same information at different points in the system. In any event, the originating processor was known in the prior art and thus did not lend patentability to the claims because "Figure 1 of the '960 patent discloses a prior art electronic mail system in which the 'originating processor' is depicted as the processor which originates the email message, which is separate and distinct from other constituent components such as gateway switches"¹³⁴ The BlackBerry handheld device does nothing more than transmit email wirelessly and the BlackBerry Redirector software does nothing more than forward email in a wired system. These are the only aspects of the accused system located in the United States and neither lent patentability to the claims. Neither the forwarding of messages to the BlackBerry Relay nor the end users' control and use of the BlackBerry handheld devices to transmit messages are the use of the patentably distinctive aspect of an invention which compelled a conclusion of infringement in *Decca*. *Decca* stated that a use in the United States of a non-patentably distinctive aspect of a system was merely incidental and would not

¹³¹ *Id.* at 1289 (emphasis added).

¹³² *Id.* at 1302.

¹³³ *Id.* at 1305.

¹³⁴ *Id.* at 1302.

warrant a conclusion of infringement.¹³⁵ The use of fixed processors and hand-holds by RIM's customers in the United States was merely incidental to the use of the actual patentably distinctive aspect of the invention. The rationale of *Decca* therefore compels a conclusion that neither RIM nor its customers infringed under § 271(a).

The Federal Circuit viewed the situation as merely locating one of many claimed components outside the United States and did not consider this sufficient justification for nonapplication of United States infringement law. However, those were not the facts. Not just any component of the RIM system was located outside the United States. Rather, the critical component that distinguished over the prior art was located outside the United States. Based on *Decca* and the Federal Circuit decision's own statements as to the nature of the Campana invention, the decision should have been reversed with respect to the asserted claims which recited the interface switch limitation.

The Federal Circuit's *NTP* decision misapprehended the *Decca* decision on another level. A navigator using the system in *Decca* was not "in" the United States, as was a user of the RIM system. The navigator using the system was actually outside the United States in *Decca*, but the location of the user was not decisive in that:

[A]lthough the Norwegian station is located on Norwegian soil, a navigator employing signals from that station is, in fact, "using" that station and such use occurs wherever the signals are received and used in the manner claimed.¹³⁶

The beneficial "use" referred to in *Decca* was the use of the system as a whole that benefited the United States government, it did not refer to the situs of the end user.¹³⁷ By the *Decca* standard, the beneficial use in *NTP* was in Canada, where RIM was headquartered and where the system as a whole was controlled for RIM's benefit. *Decca* applies to the distributed communications system situation when the control of the system is located within the United States.¹³⁸ The location of the end user is irrelevant under *Decca* and the end user and the beneficial user are not synonymous.¹³⁹ The court in *Decca* relied more on the fact that the use was by the United States government than where

¹³⁵ See *Decca Ltd.* 544 F.2d at 1083.

¹³⁶ *Id.* (emphasis added).

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ See *id.*

the end user was located.¹⁴⁰ The Federal Circuit thus further misinterpreted *Decca* in applying it to the RIM facts.

IV. THERE IS NO DISCERNIBLE POLICY BASIS FOR REJECTING THE PATENTABLE DISTINCTIVENESS REQUIREMENT OF *DECCA*

A. *The Decca Decision Respected the Sovereignty of Other Nations*

Concerns have been expressed regarding the perceived ease with which a telecom, internet, data processing or other such system can be distributed transnationally in a manner devised to avoid all national infringement laws.¹⁴¹ Indeed, this view may have contributed to the Federal Circuit's conclusion in *NTP* as indicated by the court's statement that:

[RIM's argument] fails to appreciate the way in which the claimed NTP system is actually used by RIM's customers. When RIM's United States customers send and receive messages by manipulating the handheld devices in their possession in the United States, the location of the use of the communications system as a whole occurs in the United States.¹⁴²

However, if the patentable distinctiveness requirement of *Decca* is strictly followed, there can be no escape of all national laws. The patentably distinctive aspect of a claimed system will be sited in some country and that country's laws will apply.

Moreover, the fear that United States law can be avoided by locating, e.g., the server in a distributed computer system outside the United States does not justify misapplication of United States law. First, under *Decca*, non-patentably distinctive aspects of a claimed system are merely "incidental" and the location of such components within the United States does not warrant application of United States infringement law.¹⁴³ Furthermore, many patents directed to distributed computing systems (or business methods practiced on a distributed computing system) will indeed involve the location of the patentably distinctive aspect of the claimed system in the United States. And to the extent they do not, there is no justification under the rationale of *Decca* or the concerns expressed above to hold that infringement of United States laws occurs by such incidental use in the United States.

¹⁴⁰ *Id.*

¹⁴¹ See e.g. Lemley et al., *supra* n. 3, at 256.

¹⁴² *NTP, Inc.*, 418 F.3d at 1317.

¹⁴³ 544 F.2d at 1083.

In the rare circumstance where there is no clear home situs for the patentably distinctive aspect of a claimed system, the location of the predominant or a substantial amount of such aspect should control. But in no instance should a patentee be entitled to collect a double royalty for the same system under two separate national laws. The United States Supreme Court in *U.S. v. Univis Lens Co.*, precluded such recovery within the United States,¹⁴⁴ and there is no reason to believe the Court would not do the same for attempts to collect double royalties transnationally.¹⁴⁵ The logic of *Univis Lens* is that a patentee is entitled to only one royalty for practice of an *invention* which, under *Univis Lens*, is the essential feature, i.e., patentably distinctive feature, of the claimed invention.¹⁴⁶

Contrary to popular belief, there is no basis for concluding that all national infringement laws can be avoided by distributing a system transnationally. Rather, the standard propounded herein will more clearly identify which nation's patent laws should apply in a given case. The Court of Claims in its *Decca* opinion did not view extraterritorially-distributed systems as capable of circumventing the applicability of all national patent infringement laws because:

¹⁴⁴ 316 U.S. 241, 250 (1942).

¹⁴⁵ *Univis Lens* involved the doctrine of patent exhaustion. *Id.* at 250-51. The view of extraterritorial infringement presented herein, consistent with and emanating from the *Decca* decision and its progeny, can be analogized to, and is consistent with, the patent exhaustion doctrine. The exhaustion doctrine cuts off a patentee's rights to extract damages under the patent infringement statute if the "essential feature" of a claimed invention has been transferred in an authorized manner. *See id.* at 250-51. That is, only one "royalty" can be collected for the essential feature, even if the asserted claims cover a larger system. The focus in an exhaustion analysis is on the patentably distinctive aspects of the invention. *See* John W. Osborne, *A Coherent View of Patent Exhaustion: A Standard Based on Patentable Distinctiveness*, 20 Santa Clara Computer & High Tech. L.J. 634, 677 (Mar. 2004). As discussed herein, the extraterritorial infringement provisions have been interpreted in a similar way – a patentee is entitled to recover under United States law if the essence of the claimed invention has been practiced in the United States. *Decca Ltd.*, 544 F.2d at 1083. *Decca* espouses this standard. In *Decca*, the United States patent infringement statute was deemed infringed because the patentably distinctive aspects of the claimed invention were situated in the United States. *Id.* The court opined that the outcome would have been different had the aspect of the invention which distinguished over the prior art been located outside the United States. *Id.* At bottom in a consideration of infringement where less than all elements of a claimed invention are at issue, as is the case for extraterritorially-distributed systems and some situations implicating the patent exhaustion doctrine, is whether enough of the "invention" is being practiced to warrant applicability (or exhaust applicability) of the infringement statute. Application of a patentable distinctiveness analysis provides a bright line standard which is not as susceptible to vagaries of interpretation as is the current ad-hoc analysis as represented by the holding in *NTP*.

¹⁴⁶ *See* Osborne, *supra* n. 145, at passim.

Of its very nature the system cannot be confined to one country, but *we do not think it is without any territoriality merely because it operates in more than one country*, and at sea. *Its home territory* is, we think, where the broadcast stations are, but if they are in more than one country, the location of the whole for purposes of the United States Patent Law *is where the "master" station or stations are . . .*¹⁴⁷

The patentable distinctiveness standard of *Decca* is perfectly consistent with this observation and is a rational way for defining which country's patent infringement laws should apply to an extraterritorially-distributed system.

In most, if not all, cases the patentably distinctive aspect of a claimed system will be located in a single country. It may of course be the case that a United States patent exists but a counterpart in a foreign country does not. This does not mean, however, that the patentee is necessarily deprived of a remedy, but rather, the situation results from the patentee's choice not to pursue patent protection in the particular country in which the patentably distinctive aspect of an invention is located. It should not be the goal of United States law to provide an extraterritorial remedy for a patentee who was free to apply for patent protection globally but chose not to do so. As the court observed in the *Freedom Wireless* litigation, "Plaintiff Freedom Wireless made a conscious business decision not to file for a Canadian patent [application]. The fact that it cannot extend its United States patent rights to cover the Canadian market was a risk that was freely assumed."¹⁴⁸ The court made this comment in consideration of a motion to dismiss for lack of personal jurisdiction, which was granted,¹⁴⁹ stemming from the prior adjudication of noninfringement by the Canadian wireless provider, which used database services provided by a Massachusetts company.¹⁵⁰ As is clear from the court's observation, the placement of the critical aspect of an invention outside the United States should not be viewed as an improper attempt to circumvent United States law. It should be viewed simply as an economic choice by the putative infringer that can be countered by an economic choice by the United States patentee (to file internationally). In circumstances where it is not possible, because of the nature of the invention, to locate the critical aspect of the invention outside the United States, United States law will apply. Under *Decca*, that is all a United States patentee is entitled to. Moreover, if a United States patent applicant can obtain allowance of claims directed to wholly-U.S.-sited activities, United States infringement law will of

¹⁴⁷ *Decca Ltd.*, 544 F.2d at 1074 (emphasis added).

¹⁴⁸ *Freedom Wireless, Inc. v. Boston Commun. Group, Inc.*, 218 F. Supp. 2d 19, 25 (D. Mass. 2002).

¹⁴⁹ *Id.* at 26.

¹⁵⁰ *Freedom Wireless, Inc.*, 198 F. Supp. 2d at 17-18.

course apply.¹⁵¹ But if a United States patentee cannot distinguish the prior art based solely on aspects of the claimed invention sited in the United States, there is no policy basis for extending United States infringement law to cover novel aspects located outside the United States.

None of this is to say that the United States does not have constitutional or other authority to deem trivial or incidental contacts to constitute infringement under United States law. The United States has enacted legislation specifically directed to other types of extraterritorial activities, e.g., 35 U.S.C. §§ 271(f) and (g). Notably, the Supreme Court held in *Deepsouth* that combination in a foreign country of components shipped from the United States was not infringement.¹⁵² Section 271(f) was enacted specifically to counter the Supreme Court's holding.¹⁵³ The Supreme Court had specifically alluded to Congressional intent in *Deepsouth* by stating, “[w]hen, as here, the Constitution is permissive, the sign of how far Congress has chosen to go can come only from Congress.”¹⁵⁴ Moreover, the Supreme Court recognized in *Deepsouth* that Congress's use of “within the United States” in § 271(a) reflects a territorial limit of sovereignty and was intended by Congress to prevent potential conflicts or affronts to foreign law or sovereignty.¹⁵⁵ If it ultimately hears a case factually similar to the *NTP* case, the Supreme Court should do the same thing it did in *Deepsouth* – leave the determination of the extraterritorial scope of United States law to Congress, particularly in light of the reality of global commerce and the clear objective of the legislative and executive branches to harmonize United States patent laws with other national systems.

Whether the United States has the power to include trivial or incidental contacts within the definition of infringement under § 271(a) is an entirely different issue than the proper interpretation of existing law. The statutory law, as presently written, simply does not extend to such contacts involving extraterritorially-distributed systems where the patentably distinctive aspect of the claimed system is located outside the United States.¹⁵⁶ By extending the scope of the

¹⁵¹ See e.g. Lemley et al., *supra* n. 3, at 272-75 (suggesting that an applicant draft unitary, as opposed to distributed, claims to avoid the extraterritorial infringement issue – this strategy can only succeed, however, if such claims are patentably distinctive, which goes to the heart of the *Decca* rationale).

¹⁵² *Deepsouth Packing Co.*, 406 U.S. at 528-29.

¹⁵³ 130 Cong. Rec. H10525 (1984) (reporting that § 271(f) responded to the “decision in *Deepsouth* . . . concerning the need for a legislative solution to close a loophole in patent law”).

¹⁵⁴ *Deepsouth Packing Co.*, 406 U.S. at 530.

¹⁵⁵ *Id.* at 531.

¹⁵⁶ Section 271(a) has been amended on several occasions since *Decca*. If Congress disapproved of the *Decca* control point analysis, it could have addressed the issue at any time in

infringement statute beyond the bounds intended by Congress, the Federal Circuit has inappropriately interfered with both the legislative and executive branches' ongoing efforts to harmonize United States laws in accordance with international treaties and global imperatives.

B. *A Trivial or Incidental Connection to the U.S. Does Not Justify Application of United States Law*

Prior to the Federal Circuit's decision in *NTP*, the courts have interpreted § 271(a) consistently to find infringement where the essence of *the invention* had been practiced in the United States.¹⁵⁷ The United States has a legitimate interest in providing redress for such a level of United States activity. Conversely, a trivial connection to the United States has not justified application of United States infringement law.¹⁵⁸ Of course, "trivial" in this context does not mean unimportant to the claimed system. It merely means not critical to patentability. A failure to appreciate this distinction is at the heart of the misapplication of *Decca* in *NTP*.

Where practice of a claimed invention is associated predominately with United States territory, it is only fair, and should be expected, that a patentee would have a cause of action under United States law. Under such circumstances, it is not enough to have an action for infringement under a foreign country's law. This would encourage forum shopping – i.e., allow a would-be infringer to escape liability under United States law by performing some trivial aspect of the claimed invention outside the United States. If this were the case, the infringer would be allowed to derive benefit from its United States activity without being bound by United States laws. However, if the novel aspect of the invention is practiced outside the United States, there is no justification for applying United States law – as the *Decca* court explicitly recognized. It is of no moment under *Decca* that economic benefit is derived from locating non-novel aspects (termed "incidental" aspects by the *Decca* court) in the United States. Under principles of comity, a single action for infringement should lie in the country where the patentably distinctive aspect of the invention is sited. That was the basis of *Decca* thirty years ago and it is even more important to adhere

the last thirty years. Moreover, the Supreme Court stated clearly in *Deepsouth* that any expansion of the scope of § 271(a) should come from Congress, not the courts. *Id.*

¹⁵⁷ *E.g. Decca Ltd.*, 544 F.2d at 1083; *Solaia Tech. LLC*, 2003 U.S. Dist. LEXIS 17413 at **11-12.

¹⁵⁸ *E.g. Freedom Wireless*, 198 F. Supp. 2d at 17-18; *Hughes Aircraft Co.*, 29 Fed. Cl. at 242-43.

to *Decca* today, in light of the realities of transnational telecommunications, distributed computing and the internet.

C. *Ad-Hoc Application of the “Control and Beneficial Use” Test Improperly Circumvents a Claim Construction Analysis and the Determination of the Scope of the Claimed Invention*

Under the *Decca* patentable distinctiveness analysis, it is not possible to determine whether a claim is infringed without first performing a claims construction analysis including an examination of the prosecution history and pertinent prior art. However, this should not be deemed an impediment or reason not to apply the standard. All patent cases hinge on a determination of what is actually encompassed by the asserted claims.¹⁵⁹ Determining the patentably distinctive aspect of the claimed invention is a straightforward aspect of claim interpretation.¹⁶⁰ There is no apparent reason why an extraterritorial infringement analysis should be less rigorous than any other infringement analysis. Unfortunately, the trial court in *NTP* apparently decided the extent of patent rights without performing the thorough patent analysis required by *Decca*. Although statements made by the Federal Circuit indicate awareness at both the trial and appellate levels of the basis for patentability of *NTP*'s patents, neither court considered the basis for patentability in its analysis under *Decca*. This oversight constituted reversible error.

V. CONCLUSION

The confusion regarding the scope of the United States patent infringement statute as it relates to extraterritorially-distributed systems can be eliminated by adopting an analytical procedure strictly following the *Decca* decision. The Federal Circuit's *NTP* decision, although purporting to follow *Decca*, failed to appreciate the rationale for the holding in *Decca* and reached the wrong con-

¹⁵⁹ *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 372 (1996) (claim construction is exclusively within the province of the court).

¹⁶⁰ Claims must be construed in the same manner for purposes of both infringement and validity. *Medtronic, Inc. v. Cardiac Pacemakers, Inc.*, 721 F.2d 1563, 1583 (Fed. Cir. 1983). Thus, consideration of the patentable distinctiveness of a claim is a necessary predicate to an infringement analysis. Moreover, a claim must be “construed in the light of the claim language, the other claims, the prior art, the prosecution history, and the specification, *not in light of the accused device.*” *SRI Intl. v. Matsushita Elec. Corp.*, 775 F.2d 1107, 1118 (Fed. Cir. 1985) (en banc) (emphasis in original and emphasis added).

clusion as a result. When it is next presented with the question of infringement by extraterritorially-distributed systems, which it no doubt will be, the Federal Circuit should look more closely at *Decca* and the policy and predictability issues implicated in such analyses. Requiring the identification of the patentably distinctive aspect of a claimed invention consistent with *Decca* will clarify the infringement analysis, create predictability and provide a mechanism for providing a remedy under the laws of the country most directly connected to practice of the actual invention, i.e., the country where the patentably distinctive aspect of the system is located.