

**United States Court of Appeals
for the Federal Circuit**

CHARGEPOINT, INC.,

Plaintiff-Appellant,

— v. —

SEMACONNECT, INC.,

Defendant-Appellee.

*On Appeal from the United States District Court for
the District of Maryland in Case No. 8:17-cv-03717-MJG,
Honorable Marvin J. Garbis, Senior Judge*

**BRIEF OF BLACK HILLS IP AS AMICUS CURIAE IN
SUPPORT OF REHEARING *EN BANC***

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INTEREST OF THE *AMICUS CURIAE*

Amicus Curiae Black Hills IP, LLC is a private company that innovates machine-intelligent systems for the legal services industry and believes that modern technology depends heavily on robust patent rights with a predictable system for adjudicating their validity. Black Hills IP has no direct stake in the result of this appeal and takes no position on the ultimate validity of the patents at issue.

No counsel for a party authored this brief in whole or in part, and no such counsel of a party made a monetary contribution intended to fund the preparation or submission of this brief. No person other than the *Amicus Curiae* or its counsel made a monetary contribution to its preparation or submission. Black Hills IP files this brief with the consent of the parties as required by Federal Rule of Appellate Procedure 29(a) and Federal Circuit Rule 29(c).

ARGUMENT

The panel decision jeopardizes technologies critical to the United States and further weakens our patent system. If this decision stands, the ability to protect many burgeoning technologies, including all inventions in the growing Internet of Things (IOT), is effectively eliminated, which goes against the Supreme Court’s statement that “ingenuity should receive a liberal encouragement.” *Diamond v. Chakrabarty*, 447 U.S. 303, 308-309 (1980) (internal quotes omitted).

Applying the panel’s reconceptualized *Alice* test to an example developing technology, every current and future driverless vehicle innovation involves, and is merely focused on, the “abstract” idea of vehicle operation. In other words, autonomous vehicle patents would be considered as doing nothing to improve a vehicle’s function; instead, they merely add generic control capabilities normally performed by a human to those vehicles and say ‘apply it.’ This is not the legal test, however, articulated by the Court in *Alice*.

I. The Panel Decision Incorrectly Reconceptualizes the First *Alice* Step in a Manner that Risks Patent Protection for Critical U.S. Innovations

Congress enacted the first patent laws with the Patent Act of 1790 and defined the subject matter of a U.S. patent as “any useful art, manufacture, engine, machine, or device, or any improvement therein not before known or used.” *Patent Act of 1790 Sec. 1*. It was not until 1852 that the Supreme Court began

recognizing exceptions to the broad statutory language. *See Le Roy v. Tatham*, 55 U.S. 156 (1852). Over the years the Supreme Court has excluded (i) laws of nature, (ii) natural phenomena, and (iii) abstract ideas from patent eligibility. The courts have struggled with these non-statutory exceptions ever since.

In *Alice*, the Supreme Court applied a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First, one determines whether the claims at issue are directed to a patent-ineligible concept. If so, one asks, “[w]hat else is there in the claims before us?” *Alice Corp. v. CLS Bank Int’l*, 573 U.S. 208, 217 (2014). To answer that question, one considers the elements of each claim both individually and as an ordered combination to determine whether the additional elements “transform the nature of the claim into a patent eligible application.” *Id.* The Court has described step two of this analysis as a search for an “inventive concept”—i.e., an element or combination of elements that is “sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the ineligible concept itself.” *Id.*

The Court stated, “we have described the concern that drives this exclusionary principle as one of preemption . . . [the] concern that patent law not inhibit further discovery by improperly tying up the future use of building blocks of human ingenuity.” *Id.* at 216. At the same time, “we tread carefully in

construing this exclusionary principle lest it swallow all of patent law.” *Id.* at 217.

The Court noted that,

[a]t some level, all inventions embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas. Thus, an invention is not rendered ineligible for patent simply because it involves an abstract concept. Applications of such concepts to a new and useful end remain eligible for patent protection. *Id.*

The panel here, however, began its §101 analysis of ChargePoint’s patents by doing just what the Court in *Alice* said was improper: analyzing whether “the claim *involves* an abstract idea—namely, the abstract idea of communicating requests to a remote server and receiving communications from that server, i.e., communication over a network.” (Op. 9). The panel further questioned whether networked communications were “building blocks of science and technology” that needed protection from preemption. It determined they were. Specifically, the panel stated:

With these indications from the specification in mind, we return to the claim language itself to consider the extent to which the claim would preempt building blocks of science and technology. We agree with SemaConnect that, based on the claim language, claim 1 would preempt the use of any networked charging stations.” (Op. 13)(citations omitted).

With “communication over a network” now classified as an excludable abstract idea, the panel then attempted to isolate the *focus* of the claim by

identifying the problem faced by the inventor as disclosed in the specification.

Although the panel noted that “Claim 1 indicates that the abstract idea is associated with a physical machine that is quite tangible — an electric vehicle charging station” (Op. 15) — it nonetheless concluded that “the claim language and the specification indicate that the focus of the claim is on the abstract idea of network communication for device interaction.” (Op. 15-16). This is an expansion of the list of concepts that the Supreme Court has identified as, without significantly more, being directed to patent-ineligible abstract ideas. To date, the list includes only mental processes, mathematical concepts, and fundamental economic practices long prevalent in our system of commerce.

“[T]his court sometimes incorporates claim limitations into its articulation of the idea to which a claim is directed” and should have done so in analyzing these patents. *See BASCOM Global Internet Services, Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1349 (Fed. Cir. 2016) (relying on a step of an algorithm corresponding to a means-plus-function limitation in defining the idea of a claim for step-one purposes). The panel, however, generalized the claims based on the specification stating that:

In short, looking at the problem identified in the patent, as well as the way the patent describes the invention, the specification suggests that the invention of the patent is nothing more than the abstract idea of communication over a network for interacting with a device, applied to the context of electric vehicle charging stations. (Op. 12)

Citing *O'Reilly v. Morse*, 56 U.S. 62 (1853), the panel returned to the beginning of judicial exceptions of 1853 and held that “the broad claim language would cover any mechanism for implementing network communication on a charging station, thus preempting the entire industry’s ability to use networked charging stations.” (Op. 15). This confusing statement mixes §§ 101, 102 and 112 while turning 200 years of U.S. patent law on its head. The Constitutional purpose of the patent system is to promote science and the useful arts by providing exclusive use of a claimed invention. U.S. Const. art. I, § 8, cl. 8. If ChargePoint in fact invented a charging station that meets 35 U.S.C. §§ 102, 103 and 112, even if the claims are drafted using broad language, ChargePoint is entitled to exclude the industry’s ability to use networked charging stations because “‘ingenuity should receive a liberal encouragement.’” *Chakrabarty*, 447 U.S. at 308-309 (quoting 5 Writings of Thomas Jefferson 75-76 (H. Washington ed. 1871)). And a monopoly on the ability to use networked charging stations is just that.

Nothing in the present claims comes remotely close to *Morse*’s concern of preempting all “motive power of electro-magnetism.” ChargePoint’s ‘715 Patent, for example, does not claim networked communication however developed for charging a vehicle. The only rejected claim in the *Morse* patent actually claimed the use of “electromagnetism, however developed for marking or printing intelligible characters, signs, or letters, at any distances.” *Morse*, 56 U.S. at 62

(holding that the first seven inventions, set forth in the specifications of his claims, are not subject to exception). Here, by contrast, ChargePoint’s claims recite concrete structural limitations configured in particular ways.

The panel’s holding that ChargePoint’s patents are directed to an abstract idea improperly substitutes the general problem solved by the inventor for the actual claim language granted by the USPTO. The panel decision demonstrates how dangerous it is to ignore the fundamental requirement of considering the claim language in its entirety. By looking to the inventor’s motivation as the basis for determining what a claim is “directed to,” the panel reconceptualizes the first *Alice* test, has reached the point of swallowing all of patent law and essentially made §§ 102 and 103 superfluous.

This Court recognizes that “[t]he preemption concern arises when the claims are not directed to a specific invention and instead improperly monopolize the basic tools of scientific and technological work.” *McRO, Inc. v. Bandai Namco Games America, Inc. et al.* 837 F.3d 1299, 1314 (Fed. Cir. 2016). Here, the ChargePoint claims are neither directed to an abstract idea nor pose a risk of preempting a building block of science and technology; they are therefore patent eligible under *Alice* step one. *See SRI Int’l, Inc. v. Cisco Sys., Inc.*, No. 2017-2223, slip op. at 11 (Fed. Cir. Mar. 20, 2019) (concluding that the claims are not directed

to an abstract idea under step one of the *Alice* analysis). Review *en banc* is needed to clarify the proper framework for analyzing these §101 issues.

II. The Panel’s Reconceptualization of the *Alice*’s *Second Test* Conflicts with Federal Circuit Precedent, including Recently-Decided *BASCOM*

The second step of *Alice* requires the court to consider specific claim limitations’ narrowing effect by looking at “the elements of each claim both individually and ‘as an ordered combination’ to determine whether the additional elements ‘transform the nature of the claim’ into a patent-eligible application.” *BASCOM*, 827 F.3d at 1347. ChargePoint’s patents clearly provide improved charging stations over prior art stations by including more hardware components to allow more sophisticated management of the vehicle charging operation. Yet, the panel merely characterized the electrical components of the claimed charging station (for example controllable switch, transceiver, controller) as generic and stated that “the claims do nothing to improve how charging stations function; instead, the claims merely add generic networking capabilities to those charging stations and say “apply it.” This is simply an abstract-idea-based solution implemented with generic technical components in a conventional way.” (Op. 24).

“The inventive concept inquiry requires more than recognizing that each claim element, by itself, was known in the art. As is the case here, an inventive concept can be found in the non-conventional and non-generic arrangement of

known, conventional pieces.” *BASCOM*, 827 F.3d at 1350. The panel, however, seems to have abandoned that holding, saying here that “adding novel or non-routine components is not necessarily enough to survive a § 101 challenge.” (Op. 22.) And in its conclusion the panel stated that “the inventors here had the good idea to add networking capabilities to existing charging stations to facilitate various business interactions. But that is where they stopped, and that is all they patented.” (Op. 16). This conclusion is only possible if one ignores all the claim limitations.

The irony of the panel’s decision is that had the patent claims merely listed the electrical components, they would easily be considered patent eligible. Whether or not an apparatus containing a switch, transceiver and controller for charging a vehicle meets all statutory patentability requirements, it clearly meets eligibility requirements.

Assuming for purposes of §101 analysis that vehicle charging stations prior to ChargePoint’s invention did not contain a controllable switch, transceiver and controller connected to operate as claimed (§§ 102 and 103), the question to be answered is: can an inventive concept be found in the ordered combination of claim limitations that transform the abstract idea of network communication into a particular, practical application of that abstract idea? The claims of each ChargePoint patent clearly pass this test.

Finally, to help reduce uncertainty, the USPTO issued guidance to its examiners and the public which explains that abstract ideas identified by the courts can be grouped as, e.g., mathematical concepts, certain methods of organizing human activity, and mental processes. *See* 2019 Revised Patent Subject Matter Eligibility Guidance, 84 Fed. Reg. 50 (Jan. 7, 2019). The USPTO correctly instructs that a claim cannot be “directed to” a judicial exception if the claim recites additional elements that integrate the exception into a practical application of that exception. Although the USPTO guidance is not binding on the Courts, the panel decision effectively overrules the guidance and frustrates the efforts of the USPTO to bring more clarity and predictability to its stakeholders with respect to its application of §101 jurisprudence.

CONCLUSION

This Court has never before applied § 101 to invalidate claims to an improved machine or treated claims to that machine as abstract by not considering limitations in the claims. ChargePoint's invention easily satisfies the test set forth in *Alice* and full-court review is needed to confirm that *Alice* allows patenting improved machines. The panel decision jeopardizes technologies critical to the United States and weakens the patent system by creating unnecessary doubt in patents issued under the USPTO's recent guidance.

En banc rehearing should be granted.

Respectfully submitted,

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