NOTE: This disposition is nonprecedential.

United States Court of Appeals for the Federal Circuit

GEOSCOPE TECHNOLOGIES PTE. LTD.,
Plaintiff-Appellant

v.

GOOGLE LLC, APPLE INC.,
Defendants-Appellees

2024-1003, 2024-1018

Appeals from the United States District Court for the Eastern District of Virginia in Nos. 1:22-cv-01331-MSN-JFA, 1:22-cv-01373-MSN-JFA, Judge Michael S. Nachmanoff.

Decided: May 2, 2025

TIMOTHY GILMAN, Schulte Roth & Zabel, LLP, New York, NY, argued for plaintiff-appellant. Also represented by CHRISTOPHER GERSON.

BRIAN ROSENTHAL, Gibson, Dunn & Crutcher LLP, New York, NY, argued for all defendants-appellees. Defendant-appellee Apple Inc. also represented by VIVIAN LU; BRIAN M. BUROKER, Washington, DC; JAYSEN CHUNG, San Francisco, CA; BLAINE H. EVANSON, NATHANIEL RYAN

SCHARN, Irvine, CA; JULIA G. TABAT, Dallas, TX.

ADAM HARBER, Williams & Connolly LLP, Washington, DC, for defendant-appellee Google LLC. Also represented by DEBMALLO SHAYON GHOSH, XUN LIU, ADAM PAN, ANDREW V. TRASK.

Before HUGHES, MAYER, and STOLL, *Circuit Judges*.

PER CURIAM.

Geoscope Technologies Pte. Ltd. ("Geoscope") appeals final judgments of the United States District Court for the Eastern District of Virginia holding that several claims of its asserted patents were directed to patent ineligible subject matter. *See Geoscope Techs. Pte. Ltd. v. Google LLC*, 692 F. Supp. 3d 566 (E.D. Va. 2023) ("*Google Decision*"); *Geoscope Techs. Pte. Ltd. v. Apple Inc.*, No. 1:22-cv-01373-MSN-JFA, 2023 WL 6120604 (E.D. Va. Sept. 18, 2023) ("*Apple Decision*"). For the reasons discussed below, we affirm.

I. BACKGROUND

Geoscope owns patents related to determining the location of mobile devices. At issue in this appeal are claims 1 and 32 of U.S. Patent No. 8,406,753 (the "'753 patent"), claim 2 of U.S. Patent No. 7,561,104 (the "'104 patent"), claim 18 of U.S. Patent No. 8,400,358 (the "'358 patent"), and claims 4 and 26 of U.S. Patent No. 8,786,494 (the "'494 patent") (collectively, the "asserted claims").[1]

Claim 1 of the '753 patent recites:

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[1] The '104, '358, and '494 patents share substantially identical specifications and are referred to collectively as the "'104 patent family."

> 1. A method of determining the location of a mobile device in a geographic region comprising the steps of:
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> (a) providing calibration data for each of one or more calibration points in a geographic region, said calibration data having one or more characterizing parameters;
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> (b) generating one or more sets of grid points for said calibration data;
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> (c) receiving at least one network measurement report from a mobile device at an unknown location in said geographic region;
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> (d) evaluating said at least one network measurement report with each of said sets of grid points as a function of select ones of said characterizing parameters;
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> (e) selecting a set of grid points as a function of a predetermined criteria; and
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> (f) determining the location of a mobile device in said geographic region as a function of said selected set of grid points.

'753 patent, col. 59 ll. 14–31.

Claims 1 and 2 of the '104 patent recite:

> 1. A method for determining a location of a mobile station, comprising:
>
> providing a database of previously-gathered calibration data for a predetermined region in a wireless network, wherein said network includes a first transmitter and a second transmitter;
>
> collecting observed network measurement data including a first signal characteristic from said first

> transmitter and a second signal characteristic from said second transmitter;
>
> determining which of said first and second signal characteristics has a greater magnitude;
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> modifying said observed network measurement data using the greater magnitude signal characteristic; and
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> comparing said modified network measurement data with said database of calibration data to thereby determine the location of the mobile station.
>
> 2. The method of claim 1 wherein said database comprises previously-gathered calibration data for one or more non-uniform grid points within said region.

'104 patent, col. 11 l. 66–col. 12 l. 18.

Geoscope brought separate infringement actions against Apple Inc. ("Apple") and Google LLC ("Google") in 2022. In July 2023, the district court issued a claim construction order—applicable to both actions—which construed the term "grid point" to mean "a point associated with representative calibration data for an area," J.A. 2752, and the term "calibration data" to mean "modified or unmodified network measurement data associated with a geographic location," J.A. 2740.

On September 18, 2023, the court granted the motions filed by Google and Apple for judgment on the pleadings, concluding that the asserted claims were patent ineligible under 35 U.S.C. § 101.[2] Applying the two-step framework

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[2] Geoscope's original complaints included allegations of infringement of claims of U.S. Patent No. 8,320,264 and U.S. Patent No. 9,097,784. Only the '753 patent and

set out in *Alice Corp. v. CLS Bank International*, 573 U.S. 208, 218–26 (2014), the court held that the asserted claims of the '753 patent were "directed to the abstract idea of determining an unknown location by comparing information about known locations organized in a database against measurements from a mobile device," *Google Decision*, 692 F. Supp. 3d at 581, and failed to disclose "a new source or type of information, or new techniques for analyzing it," *id.* at 583 (citation and internal quotation marks omitted).[3]

The court likewise determined that the asserted claims of the '104 patent family were patent ineligible. In the court's view, these claims were all "linked to the same abstract idea of data collection, modification, and analysis," *id.* at 575 (internal quotation marks omitted), and there were no "claim elements that amount[ed] to significantly more than the abstract idea of determining location based on data," *id.* at 580 (internal quotation marks omitted).

Geoscope then appealed to this court.[4] We have jurisdiction under 28 U.S.C. § 1295(a)(1).

II. DISCUSSION

A. Standard of Review

This court reviews a district court's decision to grant judgment on the pleadings pursuant to Federal Rule of Civil Procedure 12(c) under the law of the appropriate regional circuit. *Nat. Alternatives Int'l, Inc. v. Creative*

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the '104 patent family are at issue in this appeal. *See* J.A. 2937–41, 2942–47.

[3] Because the *Google Decision* and the *Apple Decision* are substantively similar, we cite only to the *Google Decision*.

[4] Geoscope separately appealed the *Google Decision* and the *Apple Decision*, but this court consolidated those appeals. *See* ECF No. 11.

Compounds, *LLC*, 918 F.3d 1338, 1342 (Fed. Cir. 2019); *Amdocs (Isr.) Ltd. v. Openet Telecom, Inc.*, 841 F.3d 1288, 1293 (Fed. Cir. 2016). In the Fourth Circuit, a grant of judgment on the pleadings is reviewed without deference. *See, e.g.*, *Burbach Broad. Co. v. Elkins Radio Corp.*, 278 F.3d 401, 405–06 (4th Cir. 2002).

B. The '753 Patent

The '753 patent describes a method and system for "determining the location of a mobile device in a geographic region." '753 patent, col. 5 ll. 58–59, col. 6 ll. 9–10. The specification explains that the claimed method requires collecting "calibration data for a number of locations within a geographic region" and "analyz[ing]" that data to associate it with "particular points (e.g., 'grid points') within the geographic region." *Id.* col. 2 ll. 30–33. A mobile device then obtains network signal measurements that "may be compared with the data associated with the various grid points to estimate the location of the mobile device." *Id.* col. 2 ll. 37–39. According to the specification, the claimed "grid points do not necessarily have to be part of a uniform grid and usually will not be uniformly distributed throughout the geographic region." *Id.* col. 2 ll. 43–46.

At *Alice* step one, a court must consider the claims "in their entirety to ascertain whether their character as a whole is directed to excluded subject matter." *Internet Pats. Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015). The asserted claims of the '753 patent are directed to determining the location of a mobile device by collecting data about known locations (such as information about the properties of signals transmitted by different cell towers), organizing that data in a database, and then comparing that data to measurements from the mobile device. *See* '753 patent, col. 59 ll. 14–31, col. 63 ll. 49–67; *see also* J.A. 267–68, 274–78. These claims, as the district court correctly determined, fail *Alice* step one because they simply require collecting, comparing, and reporting data

using conventional components. *See Google Decision*, 692 F. Supp. 3d at 581–83. As we have repeatedly emphasized, claims directed to "collecting information, analyzing it, and displaying certain results of the collection and analysis," without more, are impermissibly abstract. *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1353 (Fed. Cir. 2016); *see also In re Killian*, 45 F.4th 1373, 1380 (Fed. Cir. 2022) (concluding that claims "directed to collection of information, comprehending the meaning of that collected information, and indication of the results, all on a generic computer network operating in its normal, expected manner" were abstract); *Intell. Ventures I LLC v. Cap. One Fin. Corp.*, 850 F.3d 1332, 1341 (Fed. Cir. 2017) (concluding that claims related to a system which allowed users to dynamically view and update documents in different formats were abstract because they were broadly directed to the "concept of collecting, displaying, and manipulating data of particular documents").

The fact that the asserted claims of the '753 patent relate to a particular type of information—data about location—does not remove them from the realm of the abstract. *See, e.g.*, *Sanderling Mgmt. Ltd. v. Snap Inc.*, 65 F.4th 698, 701 (Fed. Cir. 2023) (concluding that claims directed to providing a processing function based on "receiving . . . a Global Positioning System (GPS) location indication from each of a plurality of mobile devices" and "matching . . . each said GPS location indication with [a specific] geographic location" in a database were patent ineligible (citation and internal quotation marks omitted)); *Int'l Bus. Machs. Corp. v. Zillow Grp., Inc.*, 50 F.4th 1371, 1375 (Fed. Cir. 2022) (concluding that claims describing "coordinated geospatial and list-based mapping" were patent ineligible (citation and internal quotation marks omitted)). To the contrary, "even if a process of collecting and analyzing information is limited to particular content or a particular source, that limitation does not make the collection and analysis other than abstract." *SAP Am., Inc. v. InvestPic,*

LLC, 898 F.3d 1161, 1168 (Fed. Cir. 2018) (citation and internal quotation marks omitted); *see also Elec. Power*, 830 F.3d at 1353 (explaining that because "[i]nformation as such is an intangible," this court has "treated collecting information, including when limited to particular content (which does not change its character as information), as within the realm of abstract ideas").

We reject, moreover, Geoscope's contention that the asserted claims of the '753 patent contain an inventive concept sufficient to save them from patent ineligibility. *See Alice*, 573 U.S. at 221 (explaining that at step two a court "must examine the elements of the claim to determine whether it contains an inventive concept sufficient to transform the claimed abstract idea into a patent-eligible application" of that idea (citation and internal quotation marks omitted)). According to Geoscope, its claims contain an inventive concept because they provide "concrete technological benefits." Appellant's Br. 4. Specifically, it asserts that "the claimed grid points are not just points on a conventional grid," *id.* at 40, but are instead "defined based on analysis of the similarity of the calibration data from which they are generated," *id.* at 41, and therefore "do not necessarily have to be part of a uniform grid and usually will not be uniformly distributed throughout the geographic region," *id.* (citation and internal quotation marks omitted). It contends, moreover, that by creating "grid points [which are] generated dynamically from the measured calibration data," its system "help[s] to fill in the 'map' between cell towers, so that geolocation [will] be faster, require fewer resources, and be more accurate." *Id.* at 4.

The fundamental flaw in this argument is that Geoscope points to nothing in the language of the asserted claims of the '753 patent that offers a specific and concrete advance in geolocation technology. *See AI Visualize, Inc. v. Nuance Commc'ns, Inc.*, 97 F.4th 1371, 1380 (Fed. Cir. 2024) (concluding that claims which did not "involve unconventional technology or a concrete application of the

[underlying] abstract idea" were patent ineligible). As the specification of the '753 patent acknowledges, various techniques for determining the location of a mobile device were available at the time of the claimed invention. '753 patent, col. 1 ll. 46–47 ("Currently in the art, there are a number of different ways to geolocate a mobile device."). The specification further acknowledges that techniques for determining the location of a mobile device using signals from known locations were available. *See id.* col. 1 ll. 47–65.

The asserted claims of the '753 patent do not invoke the use of existing technology in any unconventional manner, but instead describe—in broad, results-focused terms—comparing measurement data from a mobile device at an unknown location to a reference database containing measurement data from known locations. As we have previously made clear, however, "a claim that merely describes an effect or result dissociated from any method by which [it] is accomplished is not directed to patent-eligible subject matter." *Apple Inc. v. Ameranth, Inc.*, 842 F.3d 1229, 1244 (Fed. Cir. 2016) (alteration in original) (citation and internal quotation marks omitted). While the asserted claims of the '753 patent describe the concepts of collecting, organizing, and analyzing data to determine location, they are bereft of any specific guidelines on how to perform the basic functions they recite. *See Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1339 (Fed. Cir. 2017) (explaining that to meet section 101 claims cannot simply recite "generic functional language to achieve . . . purported solutions").

For example, while claim 1 requires "providing calibration data" which has "one or more characterizing parameters," '753 patent, col. 59 ll. 16–18, it fails to delineate what those parameters are.[5] *See Hawk Tech. Sys., LLC v. Castle*

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[5] The specification of the '753 patent provides a laundry list of "exemplary characterizing parameter[s]," '753

Retail, LLC, 60 F.4th 1349, 1358 (Fed. Cir. 2023) (concluding that claims which recited the use of parameters but "fail[ed] to specify precisely what the parameters [were]" were patent ineligible). Likewise, while claim 1 requires "selecting a set of grid points as a function of . . . predetermined criteria," '753 patent, col. 59 ll. 27–28, it does not provide guidelines regarding which predetermined criteria should be used.[6]

Importantly, moreover, the asserted claims of the '753 patent do not explain how the claimed grid points are generated from calibration data, much less suggest that any new technology is used during this generation process. "Ultimately, [t]he [section] 101 inquiry must focus on the language of the Asserted Claims themselves, and the specification cannot be used to import details from the specification if those details are not claimed." *ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) (first alteration in the original) (citation and internal quotation marks omitted). Because there is nothing in the claim language requiring any specific method of transforming calibration data into grid points or describing how such grid points are structured, we reject Geoscope's assertion that the claimed grid points are "novel, unconventional

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patent, col. 51 ll. 42–43, such as the "signal strength for a signal transmitted by a transmitter having a known location as received by a receiver at the grid point," *id*. col. 51 ll. 45–47. It states, however, that the claimed method is "not limited to" the listed exemplary parameters. *Id*. col. 51 l. 45. Notably, moreover, the specification does not suggest that unconventional measurement techniques are required to use any of the listed parameters.

[6] The specification provides a list of "[e]xemplary predetermined criteria," such as "total probability," *id*. col. 51 ll. 31–32, but does not limit the claimed method to such criteria, *id*. col. 51 l. 32.

data structures," Appellant's Br. 45, which represent a specific technical improvement to geolocation.

On appeal, Geoscope argues that the district court committed reversible error by "ignoring its adopted claim constructions," *id.* at 34, when conducting its eligibility analysis. We disagree. The court's claim constructions—including its determination that the term "grid point" means "a point associated with representative calibration data for an area," J.A. 2752—are fully consistent with its conclusion that the asserted claims of the '753 patent are patent-ineligible because they "do not focus on a specific means or method that would improve the relevant technology," but are instead "drafted at [such] a high level of generality that they are themselves directed at abstract concepts," *Google Decision*, 692 F. Supp. 3d at 582.

In this regard, we are unpersuaded by Geoscope's assertion that its claimed grid points are inventive because, unlike conventional grid points, they are "generated dynamically based on [the] analysis of gathered calibration data." Appellant's Br. 37. Merely generating one form of information—grid points—from another type of information—calibration data—is insufficient to confer patent eligibility. *See Hawk Tech.*, 60 F.4th at 1357 (concluding that claims which required "converting information from one format to another" did not satisfy section 101). Likewise, regardless of whether the claimed grid points are arranged in a non-uniform pattern, it does not change the fact that they are simply points associated with a particular form of data. *See SAP Am.*, 898 F.3d at 1169–70; *Elec. Power*, 830 F.3d at 1353–54.

In sum, while the asserted claims of the '753 patent describe comparing measurements taken from a mobile device at an unknown location against a database containing measurements from known locations, they are not directed to any specific improvement in computer technology or signal transmission and measurement functionality. Instead,

they rely on existing technology as a tool to measure and compare data from known and unknown locations. *See Uniloc USA, Inc. v. LG Elecs. USA, Inc.*, 957 F.3d 1303, 1306 (Fed. Cir. 2020) (explaining that the eligibility "inquiry often turns on whether the claims focus on specific asserted improvements in computer capabilities or instead on a process or system that qualifies [as] an abstract idea for which computers are invoked merely as a tool"). Thus, whether we view the claim elements of the asserted claims of the '753 patent individually or as an ordered combination, they do not contain an inventive concept sufficient to confer patent eligibility.

C. The '104 Patent Family

We likewise conclude that the asserted claims[7] of the '104 patent family fail to satisfy the demands of section 101.[8] These claims require determining the location of a "mobile station," '494 patent, col. 12 l. 11, such as a cell phone, by: (1) providing a database of previously-collected calibration data; (2) collecting observed network measurement data; (3) modifying that data; and (4) comparing this modified data with the database. *See id.* col. 12 ll. 10–22, ll. 31–33, col. 14 ll. 24–26; *see also* '104 patent, col. 11 l. 66–col. 12 l. 18; '358 patent, col. 13 ll. 7–18, ll. 27–29. Because the asserted claims of the '104 patent family, like those of the '753 patent, "at most recite abstract data

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[7] Although Geoscope originally asserted infringement of claim 52 of the '358 patent, the parties, in light of the district court's claim construction order, stipulated to invalidity of that claim. *See* J.A. 2939, 2944.

[8] The district court determined that claim 1 of the '494 patent was not representative of all asserted claims of the '104 patent family. *Google Decision*, 692 F. Supp. 3d at 574–75. Accordingly, it "address[ed] the distinguishing characteristics of" the various asserted claims of the '104 patent family individually. *Id.* at 575.

manipulation," *Hawk Tech.*, 60 F.4th at 1358, they fail to pass muster under *Alice* step one.

On appeal, Geoscope argues that the asserted claims of the '104 patent family "address a particular problem in geolocation involving disparities between calibration data and observed data caused by varying conditions and other operational variables affecting how signals propagate in different environments, resulting in poor estimated location accuracy." Appellant's Br. 57 (citations and internal quotation marks omitted). It further asserts that "the differences in signal propagation outdoors versus indoors can make it difficult to perform an appropriate comparison of calibration data to observed data for geolocation." *Id.* According to Geoscope, the "modifying" step of the asserted claims of the '104 patent family supplies an inventive concept because it eliminates disparities between data collected outdoors and data collected indoors and thus "prevent[s] an 'apples and oranges' comparison between the two." *Id.* at 58.

This argument falls flat. The asserted claims of the '104 patent family are not limited to "eliminating disparities" between outdoor and indoor data. Indeed, the words "outdoor" and "indoor" are not recited in the claims. Furthermore, while the claims recite "modifying" observed network measurement data before using that modified data to determine location, '494 patent, col. 12 l. 19, they do not specify precisely how such modifications should occur or recite any new technology for performing such modifications. *See Elec. Power*, 830 F.3d at 1356 (explaining that "the essentially result-focused, functional character of claim language has been a frequent feature of claims held ineligible under [section] 101").

Claim 18 of the '358 patent invokes the use of "circuitry" to carry out the functions of collecting, modifying, and comparing data. '358 patent, col. 13 ll. 12, 14, 16; *see also id.* col. 13 ll. 27–29. Reciting the use of conventional

components which function in their expected manner, however, is insufficient to satisfy section 101. *See, e.g.*, *BSG Tech LLC v. BuySeasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018) ("If a claim's only 'inventive concept' is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea."). Likewise, while claim 2 of the '104 patent and claim 26 of the '494 patent require routine mathematical calculations, *see* '104 patent, col. 12 ll. 9–12; '494 patent, col. 14 ll. 17–18, the use of such calculations fails to supply an inventive concept. *See In re Bd. of Trs. of Leland Stanford Junior Univ.*, 991 F.3d 1245, 1250 (Fed. Cir. 2021) (explaining that "[c]ourts have long held that mathematical algorithms for performing calculations, without more, are patent ineligible under [section] 101"); *see also SAP Am.*, 898 F.3d at 1168 (concluding that claims were patent ineligible where their "focus" was "not a physical-realm improvement but an improvement in wholly abstract ideas—the selection and mathematical analysis of information, followed by reporting or display of the results"). We have considered Geoscope's remaining arguments but do not find them persuasive.

III. CONCLUSION

Accordingly, the judgments of the United States District Court for the Eastern District of Virginia are affirmed.

AFFIRMED