

Keywords: 35 U.S.C. § 112 ¶ 6; means-plus-function; indefiniteness; algorithm

General: Claims may invoke § 112 ¶ 6 and be held indefinite if, read in light of the specification, the claims fail to provide sufficient structure for performing a function. In cases where the function is performed by a general purpose computer, an algorithm may be required to disclose how the computer performs to accomplish the function.

Rain Computing, Inc. vs. Samsung, Inc.

United States Court of Appeals for the Federal Circuit

Nos. 2020-1646; 2020-1656

Decided: March 2, 2021

I. Facts

Rain Computing, Inc. (“Rain”) was issued U.S. Patent No. 9,805,349 (“the ‘349 patent”), directed towards delivering software application packages to a client terminal in a network based on user demands. The claimed invention purports to deliver these packages more efficiently by using an operating system in a client terminal rather than a web browser.

To effectuate its stated goal, the ‘349 patent envisions a service provider including a server, with a number of applications installed, connected to a network. Using a client terminal, a user may visit a web store and subscribe to one or more services provided by the service provider. The service provider may then issue a user identification device which may record subscription information of the user. Using the client terminal, a user may request that the server send a list of application packages to the client terminal. The user is licensed to use the one or more applications on the list based on the subscription information recorded on the user identification device. In order to execute or run an application, the user may select a package from the list, and send a request to the server. The server may then need to verify the user’s subscription before activation the application. Once the user’s subscription is verified, the client terminal can begin transferring the selected application package and execute the application package on the client terminal, using resources of the operating system resident in the memory of the client terminal.

Claim 1 of the ‘347 patent is representative of the asserted claims. Claim 1 notably recites: (a) sending *a user identification module* configured to control access of one or more software application packages and (b) executing the first software application package by a processor of the client terminal device using resources of an operating system resident in a memory of the client terminal device.

Rain sued Samsung, Inc. (“Samsung”) in the U.S. District Court for the District of Massachusetts for infringement of the claims of the ‘349 patent. In response, Samsung argued that the claims should be held indefinite based on application of § 112 ¶ 6. In the February 2020 decision, the district court construed various claim terms including “executing the [first/second] software application package...in a memory of the client terminal device” and “user identification module configured to control access of...software application packages.” In the decision, the district court determined that “user identification module” was a means-plus-function term subject to 35 U.S.C. § 112 ¶ 6, but held that the claims were not invalid as indefinite. Rain appealed, challenging the district court’s construction of the “executing” term, and Samsung cross-appealed, challenging the court’s determination that “user identification module” does not render the claims indefinite.

II. Issues

- 1) Did the district court err in determining that “user identification module” invokes 35 U.S.C. § 112 ¶ 6?
- 2) Did the district court err in determining that “user identification module” does not render the claims invalid as indefinite for failing to disclose adequate corresponding structure?

III. Discussion

1. No. As a preliminary issue, the Federal Circuit (“the court”) addressed how to determine whether claim language invokes 35 U.S.C. § 112 ¶ 6. Under § 112 ¶ 6, a patentee may draft claims “as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof.” But such claims are construed to cover only “the structure, material, or acts described in the specification as corresponding to the claimed function and equivalents thereof.” *Williamson v. Citrix Online, LLC*, 792 F. 3d 1339, 1347 (Fed. Cir. 2015). The court noted that to make such a determination, an inquiry must be made as to “whether the words of the claim are understood by persons of ordinary skill in the art to have a sufficiently definite meaning as the name for structure.” *Id.* at 1349. If those words lack a sufficiently definite meaning, § 112 ¶ 6 applies. If the limitation uses the word “means,” there is a rebuttable presumption that § 112 ¶ 6 applies. If not there is a rebuttable presumption that the provision does not apply. But that “presumption can be overcome and § 112 ¶ 6 will apply if the challenger demonstrates that the claim term fails to recite sufficiently definite structure or else recites function without reciting sufficient structure for performing that function.” *Id.* at 1348.

Based on the framework described above, the court affirmed the district court’s determination that “user identification module” was means-plus-function language that invoked § 112 ¶ 6. The court first determined that since the term did not include the word “means,” there was a rebuttable presumption that the provision did not apply. However, in *Williamson*, the court held that the term module “is a well-known nonce word that can operate as a substitute for ‘means,’” and that “module” in the claim term “distributed learning control module” “does not provide any indication of structure because it sets forth the same black box recitation of structure...as if the term ‘means’ had been used.” *Id.* at 1350. Similarly, here the court determined that “module” in the claim term “user identification module” does not provide any indication of structure, and held that Rain failed to point to any claim language providing any structure for performing the claimed function of being configured to control access.¹

Rain offered two different arguments to challenge the determination that the claim language invoked § 112 ¶ 6. First, Rain argued that an amendment made during prosecution of “a user identification module *for accessing...*” to “a user identification module *configured to control access of...*” prevented “user identification module” from being a means-plus-function term. (Emphasis added.) According to Rain, replacing “for” with “configured to” removed the means-plus-function language. However, the court determined that the purely functional claim language reciting what the “user identification module” is configured to do provides no structure. In the alternative, Rain argued that during prosecution, an Examiner’s Answer was that supported its position that the term is not a means-plus-function term. The Examiner’s Answer stated, in relevant part, that since the claim is directed to a method rather than an apparatus, the limitation “user identification module configured to control access” does not invoke § 112 ¶ 6. The court dismissed this argument, and notably held that to the extent the examiner or the Patent and Trademark Office understood that a means-plus-function term

¹ The court noted that “the specification does not impart any structural significance to the term; in fact, it does not even mention a “user identification module.”

cannot be nested in a method claim, they were incorrect.² Accordingly, the court affirmed the district court’s decision that “user identification module” was means-plus-function language that invoked § 112 ¶ 6.

2. Yes. The court determined that the district court did err in holding that the claims were not invalid as indefinite. The court outlined a two-step process for construing a means-plus-function claim. The first step is to identify the claimed function. The next step is to determine what structure, if any, disclosed in the specification corresponds to the claimed function. Under this second step, structure disclosed in the specification is corresponding structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. The court noted that if the function is performed by a general purpose computer or microprocessor, then the second step generally further requires that the specification disclose the algorithm that the computer performs to accomplish that function. Finally, the court explained that if the patentee fails to disclose adequate corresponding structure based on the above steps, the claim is indefinite.

At step one, the court agreed with the district court’s finding (and the parties did not dispute) that the function of “user identification module” was “to control access to one or more software application packages to which the user has a subscription. At step two, the district court found that the structural examples linked to the function of the “user identification module” were all “computer-readable media or storage devices” (a SIM card, an IC card, a flash memory drive, a memory card, a CD-ROM, and the like) and held that the disclosure of computer-readable media or storage devices provided sufficient structure for the control access function. The court, however, explained that the disclosure of computer-readable media or storage devices amount to nothing more than a general-purpose computer, and “controlling access to one or more software application packages” requires more than “merely plugging in a general purpose computer.” Rather, some special programming, i.e., an algorithm, would be required to control access to the software application packages. Since nothing in the claim language or the written description provided an algorithm to achieve the “control access” function of the “user identification module,” the court held that “user identification module” lacks sufficient structure and renders the claims indefinite.

IV. Conclusion

The court ruled that the district court erred in its determination that the claims were not invalid as indefinite for failing to disclose adequate corresponding structure. The court determined that because the structural examples included in the written description amount to nothing more than a general purpose computer and no algorithm is provided to perform the controlling access function, the term “user identification module” lacks sufficient structure and renders the claims indefinite. The court reversed the district court’s judgment that the asserted claims of the ‘349 patent are not invalid as indefinite and dismissed Rain’s appeal as moot.

V. Takeaways

Be wary when drafting claims so as to avoid unintentionally invoking means-plus-function treatment. Inventions that involve software should be careful to include proper algorithmic disclosure for each element of the claim that could be considered a means-plus-function element. *See* MPEP 2181.

² The court cites several cases supporting the holding that “Applicants are free to invoke § 112 ¶ 6 for a claim term nested in a method claim.”