UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
12/942,721	11/09/2010	GARY W. GRUBE	CS00205	2211

89322 7590 06/08/2020

Garlick & Markison (PST)
100 Congress Avenue, Suite 2000
Austin, TX 78701

EXAMINER
ZHAO, YU

ART UNIT	PAPER NUMBER
2169	

NOTIFICATION DATE	DELIVERY MODE
06/08/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

MMURDOCK@TEXASPATENTS.COM
bpierotti@texaspatents.com

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte GARY W. GRUBE and TIMOTHY W. MARKISON

Appeal 2018-008670
Application 12/942,721
Technology Center 2100

Before JENNIFER S. BISK, LARRY J. HUME, and
JULIET MITCHELL DIRBA, *Administrative Patent Judges.*

BISK, *Administrative Patent Judge.*

DECISION ON APPEAL[1]

STATEMENT OF THE CASE

Pursuant to 35 U.S.C. § 134(a), Appellant[2] appeals from the Examiner's decision to reject claims 1–4, 10–13, and 19–24. *See* Final Act. 1. We have jurisdiction under 35 U.S.C. § 6(b).

We AFFIRM.

---

[1] Throughout this Decision we have considered the Specification filed November 9, 2010 ("Spec."), the Final Rejection mailed October 19, 2017 ("Final Act."), the Appeal Brief filed March 29, 2018 ("Appeal Br."), the Examiner's Answer mailed July 5, 2018 ("Ans."), and the Reply Brief filed September 4, 2018 ("Reply Br.").

[2] We use the term "Appellant" to refer to "applicant" as defined in 37 C.F.R. § 1.42. Appellant identifies the real party in interest as International Business Machine. Appeal Br. 1.

CLAIMED SUBJECT MATTER

The claims are directed to a selecting data storage facilities in a plurality of dispersed storage networks. Spec. Abstract. Claims 1 and 10, the only independent claims at issue, are reproduced below:

> 1. A method for execution by a processing module of a computing device that is affiliated with a dispersed storage network (DSN) computing system of a plurality of DSN computing systems, the method comprises:
>
> sending a request to store data from a user device of a first DSN computing system of the plurality of DSN computing systems to the first DSN computing system of the plurality of DSN computing systems;
>
> determining, by the first DSN computing system of the plurality of DSN computing systems, when the data is to be stored in the first DSN computing system of the plurality of DSN computing systems;
>
> when the data is not to be stored in the first DSN computing system of the plurality of DSN computing systems, accessing, by the first DSN computing system of the plurality of DSN computing systems, a file directory that identifies the plurality of DSN computing systems based on the request to store data, wherein each DSN computing system of the plurality of DSN computing systems includes a managing unit, an integrity unit, and DSN memory that includes a plurality of dispersed storage (DS) units;
>
> coordinating with a second DSN computing system of the plurality of DSN computing systems to store the data;
>
> wherein the first DSN computing system of the plurality of DSN computing systems and the second DSN computing system of the plurality of DSN computing systems have different dispersed error encoding parameters;
>
> encoding a data segment of the data in accordance with a dispersed storage error coding function of the second DSN computing system of the plurality of DSN computing systems to produce a set of encoded data slices, wherein the dispersed storage error coding function performs forward error correction (FEC) encoding to generate an encoded data segment and slicing

of the encoded data segment to generate the set of encoded data slices;

writing the set of encoded data slices to DS units of the second DSN computing system of the plurality of DSN computing systems; and

updating the file directory to include an identity of the second DSN computing system of the plurality of DSN computing systems and an identity of the set of encoded data slices.

Appeal Br. 12–13 (Claims App.).

10. A computer affiliated with a dispersed storage network (DSN) computing system of a plurality of DSN computing systems, the computer comprises:

an interface; and

a processing module when operably coupled functions to:

receive, via the interface, a request to store data from a user device of a first DSN computing system of the plurality of DSN computing systems;

determine, by the processing module, when the data is to be stored in the first DSN computing system of the plurality of DSN computing systems;

when the data is not to be stored in the first DSN computing system of the plurality of DSN computing systems,

access a file directory to identify the plurality of DSN computing systems, wherein each DSN computing system of the plurality of DSN computing systems includes a managing unit, an integrity unit, and DSN memory that includes a plurality of dispersed storage (DS) units;

coordinate with a second DSN computing system of the plurality of DSN computing systems to store the data; wherein the first DSN computing system of the plurality of DSN computing systems and the second DSN computing system of the plurality of DSN computing

> systems have different dispersed error encoding parameters;
>
> encode a data segment of the data in accordance with a dispersed storage error coding function of the second DSN computing system of the plurality of DSN computing systems to produce a set of encoded data slices, wherein the dispersed storage error coding function performs forward error correction (FEC) [to] encode an encoded data segment and to slice the encoded data segment to generate the set of encoded data slices;
>
> write the set of encoded data slices to DS units of the second DSN computing system of the plurality of DSN computing systems; and
>
> update the file directory to include an identity of the second DSN computing system of the plurality of DSN computing systems and an identity of the set of encoded data slices.

Appeal Br. 14–15 (Claims App.).

REFERENCES

The prior art relied upon by the Examiner as evidence is:

Name	**Reference**	**Date**
Sawhney	US 8,370,312 B1	Feb. 5, 2013
Bright	US 2003/0120723 A1	June 26, 2003
Douceur	US 2007/0168364 A1	July 19, 2007
Foster	US 2008/0183975 A1	July 31, 2008
Zuckerman	US 2010/0094974 A1	Apr. 15, 2010

REJECTIONS

Claims 1, 10, 19, and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bright, Zuckerman, and Foster. Final Act. 7–20.

Claims 2–4 and 11–13 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bright, Zuckerman, Foster, and Douceur. Final Act. 20–31.

Claims 20, 21, 23, and 24 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bright, Zuckerman, Foster, and Sawhney. Final Act. 31–38.

OPINION

We review the appealed rejections for error based upon the issues identified by Appellant, and in light of the arguments and evidence produced thereon. *Ex parte Frye*, 94 USPQ2d 1072, 1075 (BPAI 2010) (precedential). To the extent Appellant has not advanced separate, substantive arguments for particular claims, or other issues, such arguments are waived. 37 C.F.R. § 41.37(c)(1)(iv).

We have considered all of Appellant's arguments and any evidence presented. We highlight and address specific findings and arguments for emphasis in our analysis below.

Claims 1 and 10

The Examiner rejects claims 1 and 10 as obvious over the combination of Bright, Zuckerman, and Foster. Final Act. 7–20. Specifically, the Examiner cites to Bright as teaching the first several limitations of claims 1 and 10, but relies on Zuckerman as teaching or suggesting "wherein the first DSN computing system of the plurality of DSN computing systems and the second DSN computing system of the plurality of DSN computing systems have different dispersed error encoding." Final Act. 7–13. In addition, the Examiner relies on Foster for teaching "an integrity unit," "encoding a data segment . . . ," "writing the set of encoded data slices . . . ," and "updating the file directory . . . ." *Id.* at 13–20.

Appellant argues the Examiner erred in finding that the prior art discloses "(a) determining, in response to a request, whether or not to store data in a first DSN computing system; (b) coordinating with a second DSN computing system to store the data using different error encoding parameters; and (c) an integrity unit." Appeal Br. 6.

First, Appellant argues that Bright does not teach the claimed "request to store data is received at a first DNS computing system, which system determines whether it will store the data" because it describes receiving a *data set*. *Id.* at 7. We determine that a person of ordinary skill in the art would understand Bright's disclosure of receiving a data set to encompass or at least suggest a request to store the data. Bright ¶ 10 ("A distributed network data storage method includes receiving a data set from a client . . . and writing each of the data portions to a corresponding one of the device portions."). Indeed, Appellant concedes that "the Appellant's 'request to store data' *would* likely include the data," indicating that a person of ordinary skill in the art would recognize that the request to store the data and the data itself often overlap. Reply 3. We, therefore, are not persuaded that this argument shows reversible error by the Examiner.

Second, Appellant argues that "Bright is describing only one of the DSN computing systems of Appellant's clam 1, as such the second DSN computing system is not disclosed or taught by Bright" and, thus, does not teach "coordinating with a second DSN computing system to store the data using different error encoding parameters." Appeal Br. 8. We are not persuaded that this argument shows reversible error by the Examiner.

The Examiner explains that "[u]nder the broadest reasonable interpretation, DSN computing system is broadly interpreted as [a]

computing system." Ans. 9. Given this interpretation, the Examiner finds that Bright's plurality of servers 102 (2–m) qualify as the claimed second DSN computing system. *Id.* In response, Appellant argues "even assuming, arguendo, that Bright's server 102 is the equivalent of a DSN computing system . . . [i]t is simply not reasonable to argue that when server 102 of Bright divides data into portions and sends it to other affiliated servers that is somehow the equivalent" to the claim because "[s]uch an argument stretches and contorts the term 'data' into a contradictory smorgasboard [sic]." Reply 5. We do not understand this argument to show that Bright's servers 102 (2–m) do not qualify as the claimed second DSN computing system under the Examiner's interpretation of the term.

The Examiner adds that Foster discloses coordinating with a second DSN computing system to store the data. Ans. 9–10 (citing Foster ¶¶ 10, 47–48). Appellant responds that "Foster is simply describing the fundamental distributed storage network (DSN)," but does not disclose "DSN computing systems coordinating with each other." Reply Br. 6. We, however, determine that a person of ordinary skill in the art would have understood Foster's disclosure of determining which servers the data should be written to and subsequently communicating with the target servers such that it writes the data to those servers (Foster ¶¶ 47–49) as teaching or suggesting coordinating with a second system to store the data as claimed. Appellant does not point to any language in the Specification, nor do we see any disclosure that defines coordination between DSN computing systems to require anything more than that involved in any data transfer between systems. For example, the only use of the term within the Specification appears to use the term broadly, consistent with facilitating the writing of

data in the customary manner. Spec. ¶¶ 30 ("For example, the DS managing unit 18 coordinates the creation of a vault (e.g., a virtual memory block) within the DSN memory 22 for a user device (for a group of devices, or for public access)."). We, therefore, are not persuaded that this argument shows reversible error by the Examiner.

Third, Appellant argues that Foster does not disclose the integrity unit. Appeal Br. 8–9. Specifically, Appellant summarily concludes that Foster's disclosure that "each slice server may perform an integrity check on its [own] stored data slice," does not equate to the claimed "each DSN computing system . . . includes . . . an integrity unit." Appeal Br. 9 (citing Foster ¶ 17). Appellant does not further explain *why* this disclosure is insufficient.

The Examiner explains that the term "an integrity unit," as claimed, is broad enough to incorporate a unit implemented as "hardware, software module or combination of software and hardware." Ans. 11. Indeed, according to the Examiner, "any unit that can perform the 'integrity' function can be broadly interpreted as 'integrity unit,'" including the portion of Foster's slice server that performs an integrity check. *Id.* Appellant does not address Examiner's explanation regarding the integrity unit in the Reply Brief. *See* Reply Br. We, therefore, are not persuaded that this argument shows reversible error by the Examiner.

Accordingly, we are not persuaded of error in the Examiner's rejection of claims 1 and 10 as obvious over the combination of Bright, Zuckerman, and Foster.

Claims 2–4, 11–13, and 19–24

The Examiner rejects claims 2–4, 11–13, and 19–24, each of which depend, directly or indirectly, from claims 1 and 10, over Bright, Zuckerman, and Foster combined with either Douceur or Sawhney. Final Act. 20–38. Appellant does not make any additional arguments for the dependent claims. Appeal Br. 9–10. Thus, we also are not persuaded of reversible error in the Examiner's rejection of dependent claims 2–4, 11–13, and 19–24.

CONCLUSION

We affirm the Examiner's rejections.

DECISION SUMMARY

Claims Rejected	35 U.S.C. §	Basis/ Reference(s)	Affirmed	Reversed
1, 10, 19, 22	103(a)	Bright, Zuckerman, Foster	1, 10, 19, 22	
2–4, 11–13	103(a)	Bright, Zuckerman, Foster, Douceur	2–4, 11–13	
20, 21, 23, 24	103(a)	Bright, Zuckerman, Foster, Sawhney	20, 21, 23, 24	
Overall Outcome			1–4, 10–13, 19–24	

TIME PERIOD FOR RESPONSE

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a) (1)(iv). *See* 37 C.F.R. § 41.50(f).

AFFIRMED