# IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS MARSHALL DIVISION

LUMINATI NETWORKS, LTD.,	§	
Plaintiff,	<b>§</b> §	
V.	§ 8	Case No. 2:19-cv-00395-JRG
	§	
TESO LT, UAB, OXYSALES, UAB,	§	
and METACLUSTER LT, UAB,	§	
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Defendants.	§	

## **CLAIM CONSTRUCTION OPINION AND ORDER**

In this patent case, Plaintiff Luminati Networks, Ltd. ("Plaintiff") alleges infringement of U.S. Patents 10,257,319, 10,484,510, and 10,469,614 by Defendants Teso LT, UAB, Oxysales, UAB, and Metacluster LT, UAB (collectively, the "Defendants"). Dkt. No. 126 at 4. Each of these patents relates to improving speed and bandwidth efficiency when accessing data over the Internet. *See* '319 Patent at 1:23–25; '510 Patent at 1:26–28; '614 Patent at 1:19–23.

Generally, the parties have two types of disputes. First, they dispute the scope of three similar terms across the patents: "client device," "first server," and "second server." Second, Defendants contend some of the asserted claims are indefinite. Having considered the parties' briefing along with arguments of counsel at a November 17, 2020 hearing, the Court resolves these disputes as follows.



### I. BACKGROUND

### A. The '319 Patent and '510 Patent

These two patents, which share the same specification, concern "Internet communication, and more particularly, . . . improving data communication speed and bandwidth efficiency on the Internet." '319 Patent at 1:23–25; *see also* '510 Patent at 1:26–28. The patents explain how, as Internet bandwidth consumption continues to increase, users experience slower speeds, content owners pay more for hosting and bandwidth costs, and Internet Service Providers (ISPs) incur higher infrastructure costs. '319 Patent at 1:29–53; '510 Patent at 1:32–56.

The patents describe two prior-art attempts to address these problems. First, some systems use "proxy servers" located logically between client devices and web servers. The proxy servers request content from various web servers and store, or "cache," that content for future use by other client devices that request the same content. This speeds access to the data for devices that are geographically close to a proxy server, provided that proxy server has the necessary storage space and bandwidth for all of the content likely to be requested. *See generally* '319 Patent at 2:08–23.

The patents, however, caution against using proxy servers for large-scale (e.g., global) solutions as having insufficient storage for all the data available on the Internet. Such implementations would require an extensive capital investment, and proxy servers are poorly suited for dynamic data.<sup>2</sup> *Id.* at 2:24–39.

Second, as an alternative to proxy servers, the patents describe peer-to-peer file sharing, a process by which files are stored on many computers accessible through the Internet. This provides

<sup>&</sup>lt;sup>2</sup> "Dynamic data" does not exist until created in response to the request of a client device. '319 Patent at 1:65–2:05.



<sup>&</sup>lt;sup>1</sup> The '510 Patent's underlying application was a continuation of the '319 Patent's underlying application. '510 Patent at (60).

multiple sources for files and therefore speeds access to these files. *See generally* '319 Patent at 2:40–52. This approach, however, requires a file index tracking the location of all shared content. *Id.* at 2:52–58. While this works well for files in relatively low demand, the cost of storing and maintaining a large index for all available Internet content is cost prohibitive. *Id.* at 2:59–3:01. As with proxy servers, peer-to-peer file sharing also does not effectively address the use of dynamic data. *Id.* at 3:01–03.

The patents purport to address these problems with a system that, relative to the prior art, "provides for faster and more efficient data communication within a communication network." *Id.* at 3:13–15. Specifically, the patents describe a system in which a client device intercepts communication requests (e.g., a web request for content) to a server from requesting applications (e.g., web browsers). The client device transmits intercepted requests to an acceleration server, which returns a list of agents associated with the targeted server's IP address. The request is then sent to these agents, which respond with a list of peers that have previously seen some or all of the requested content. The client then downloads the data from these peers rather than the server, which speeds up file transfer, reduces congestion by fetching content from multiple sources, and offloads data transfers from web servers to nearby peers. '319 Patent at (57).

The claims are specific to HTTP requests and recite a client device acting as an intermediary between two servers. Claim 1 of the '319 Patent requires a client device to:

receiv[e], from the second server, [a] first content identifier;

send[], to the first server over the Internet, a Hypertext Transfer Protocol (HTTP) request that comprises the first content identifier;

receiv[e] the first content from the first server over the Internet in response to the sending of the first content identifier; and

send[] the first content . . . to the second server, in response to the receiving of the first content identifier.



'319 Patent at 19:16–32. Similarly, Claim 1 of the '510 Patent requires the client device to:

establish[] a Transmission Control Protocol (TCP) connection with a second server;

send[], to [a] web server over an Internet, the first content identifier;

receiv[e], the first content from the web server over the Internet in response to the sending of the first content identifier; and

send[] the received first content, to the second server over the established TCP connection, in response to the receiving of the first content identifier.

'510 Patent at 19:18–31. As the term suggests, the "first content identifier" is some identifier that allows the system to identify the requested content, such as a checksum of the content. *See, e.g.*, '310 Patent at 15:20–22 ("The chunk request that the client sends to each of the peers is the checksum of the data that the client seeks to receive, which is the key (identifier) of the chunk.").

### B. The '614 Patent

The '614 Patent concerns similar subject matter. Much like the '319 Patent and '510 Patent, the claims recite a client device communicating with a server over the Internet, but the client device only *sometimes* acts as a proxy. Luminati characterizes this as dynamically shifting between two states—either acting as a proxy or not acting as a proxy—based on some criteria. *See* Dkt. No. 126 at 3. The state-determining criteria might be, for example, the outcome of a random number generator, '614 Patent at 92:30–35, the physical location of the client device, *id.* at 92:47–49, the time a client device signs up with a server, *id.* at 93:31–34, or the IP addresses of the various devices, *id.* at 93:22–30.

In Claim 1, the state-determining criteria is the amount of resource utilization. That claim recites the steps of:

initiating, by the client device, communication with [a] first server over the Internet in response to connecting to the Internet, the communication comprises sending, by the client device, the first



identifier to the first server over the Internet;

- when connected to the Internet, periodically or continuously determining whether the resource utilization satisfies the criterion;
- responsive to the determining that the utilization of the resource satisfies the criterion, shifting to the first state or staying in the first state;
- responsive to the determining that the utilization of the resource does not satisfy the criterion, shifting to the second state or staying in the second state;
- responsive to being in the first state, receiving, by the client device, a request from the first server; and
- performing a task, by the client device, in response to the receiving of the request from the first server,

'614 Patent at 172:50–67 (emphasis added). The performed "task" requires:

- receiving, by the client device, the first content identifier from the first server;
- sending, by the client device, the first content identifier to the web server;
- receiving, by the client device, the first content from the web server in response to the sending of the first content identifier; and
- sending, by the client device, the received first content to the first server.

*Id.* at 173:5–13.

### II. GENERAL LEGAL STANDARDS

### A. Construction of Claim Terms and Phrases

"[T]he claims of a patent define the invention to which the patentee is entitled the right to exclude." *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1115 (Fed. Cir. 2004)).



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