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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Akamai Technologies, Inc.
Petitioner

v.

Limelight Networks, Inc.
Patent Owner

Case IPR2017-00348

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 8,750,155
CHALLENGING CLAIMS 1, 8, and 13
UNDER 35 U.S.C. § 312 AND 37 C.F.R. § 42.104**

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U.S. Patent No. 8,750,155 - Claims 1, 8, and 13
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Akamai Technologies, Inc. requests *Inter Partes* Review of claims 1, 8, and 13 of USP 8,750,155 (“’155 patent”) (Ex. 1001) pursuant to 35 U.S.C. §§ 311-19 and 37 C.F.R. § 42.1 *et seq.*

I. INTRODUCTION

The ’155 patent claims a purportedly novel system that allegedly optimizes the characteristics or “attributes” of a communication connection between an Internet server and an end user computer when the server delivers “content” (*e.g.*, web pages, data, and streaming video) to the end user computer over the connection. But in fact, the claimed technique merely duplicates a well-known method—called “TCP connection optimization”—disclosed by Thomas Devanneaux in a patent application filed nearly three years before the ’155 patent’s alleged priority date. USPN 2007/0156845 (“Devanneaux”)(Ex. 1003), ¶0023 (“TCP connection optimization involves adjusting one or more TCP settings....”).

As the ’155 patent explains, at the time of the patent, protocols existed to allow devices, such as servers and end user computers, to communicate with each other over the Internet. “TCP” (or “Transmission Control Protocol”) was at the time (and remains today) one such widely-adopted standard protocol. Ex. 1001-’155, 1:38-44. Using TCP, an end user computer first establishes a connection—referred to as a TCP connection—with a server over the Internet. *Id.*; *see also id.*, 16:62-63. Once the TCP connection is established, the end user computer can send

a request for particular content (*e.g.*, a web page) over the connection to the server. *Id.*, 17:2-4. The server can then send the requested content to the end user. *Id.*, 17:10-18; *see also id.* 4:43-51, Abstract.

The TCP protocol includes settings—referred to as “attributes”—that affect the way in which messages are sent over a connection. These include settings such as the size of messages to be sent, the timing at which messages are sent, and the pace at which messages are sent. *Id.*, 1:45-58, 17:19-34. As the patent explains, it was known that these settings could be adjusted depending on a range of factors including, for instance, the amount of congestion on the network. *Id.*, 1:45-54. As the patent also explains, it was known that these settings could be customized for particular circumstances. *Id.*

The ‘155 patent claims as its purported invention particular techniques for modifying these protocol settings. Specifically, the ‘155 patent describes a system that adjusts, or “conditionally adapts,” the initial settings of the protocol attributes for a connection based on two types of information. **First**, the system adjusts the settings based on information in a request for content that the server receives over the connection. *Id.*, 5:4-6, 6:33-36. For example, the server adjusts the TCP attributes based on a “hostname” (*e.g.*, fastnet.com) that is contained in the request and that identifies the domain (and the server) where the requested content is stored. *Id.*, 13:54-14:36 (explaining that “the host name alone [in a request] may

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