

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of: Edward Balassanian

U.S. Patent No. 6,629,163

Reexamination Control No.: 95/000,659

Reexamination Request Filed: February 13, 2012

For: Method and System for Demultiplexing a First Sequence of Packet Components to Identify Specific Components Wherein Subsequent Components are Processed Without Reidentifying Components

Examiner: Salman Ahmed

Technology Center/Art Unit: 3992

COMMENTS TO ACP

Attn: Mail Stop "Inter Partes Reexam"
Central Reexamination Unit
Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

Patent Owner has received the PTO's Action Closing Prosecution ("ACP") dated October 1, 2012. In the ACP, the Examiner maintained his rejection of claim 1 of U.S. Patent No. 6,629,163 ("the '163 Patent," or simply "'163") as obvious in light of "Router Plugins: A Software Architecture for Next Generation Routers" ("Decasper") and U.S. Patent No. 6,243,667 ("Kerr"). The Examiner also maintained his rejection of claims 15 and 35 as anticipated by Decasper and Kerr. Only claims 1, 15 and 35 are under reexamination. Patent Owner continues to traverse these rejections. The pending claims are reflected in the Listing of Claims attached as an Appendix. Exhibit 1 (Dr. Ng's Declaration) is also attached. While Patent Owner does not believe any fees are required, if fees are necessary, then such fees are hereby petitioned and authorized to be charged to our Deposit Account No. 504592.

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REMARKS

Patent Owner respectfully submits that there is a fundamental and patentable difference between the '163 Patent and the Decasper and Kerr prior art references—namely, the message-oriented nature of the '163 invention and its stateful, dynamic processing of the message at different layers in the protocol stack *versus* the packet-oriented nature of IP routers that are designed to only process the IP protocol.¹ An initial explanation of these fundamental differences provides the proper perspective for the claim analysis that follows.

I. Background of the '163 Invention

Claims 1, 15, and 35 use the word “message(s)” no fewer than 26 times. These message-centric claims require that a message’s packets are processed by using the first packet to dynamically identify a non-predefined sequence of components so that the output format of one component is compatible with the input format of the next component. The sequence of components, *i.e.*, the “path,” is then stored and used—along with message-specific state information—to process the subsequent packets of the message. These concepts are critical to the patentability of the '163 invention.

A. Message-Based Systems Contrasted with Packet-Based Systems

In addition to the actual claim language that centers on messages, the '163 specification repeatedly emphasizes the message-oriented nature of the invention.² *See, e.g.*, '163 Abstract

¹ IP routers have an IP core, such as the IP core disclosed in Decasper, that is responsible for the processing of IP packets. The references in this Response to “IP router,” “Decasper router,” and “Kerr router” (and the like) are meant to cover the architecture and functionality of an IP core, as opposed to the device the IP core might be integrated with, *i.e.*, “IP router” in this Response is shorthand for the IP core of the router. This definition is appropriate because the rejections based on Decasper and Kerr are focused on the IP core disclosed in those references.

² In its *Markman* Order in the related litigation, the district court construed “message[s]” as “a collection of data that is related in some way, such as a stream of video or audio data or an email

(referencing messages); Figures 1, 7A-C, 8, 9, and 12 (referencing messages); 2:38-49 (“A message is a collection of data that is related in some way, such as stream of video or audio data or an email message.”); 2:57-64 (referencing “the processing of each message”); 3:2-7 (referencing the processing of “all packets of a message”).

A message-based technology fundamentally differs from a packet-based technology in that it is concerned with not just the processing of individual packets, but with the processing of a message as a whole, *i.e.*, processing all the packets of the message. For example, the ’163 specification states that a “session” is created to ensure that all packets of a message are processed properly: the “conversion system routes *all packets of a message* through the same session of each conversion routine so that the same state or instance information can be used by *all packets of the message.*” ’163 3:2-7 (emphasis added). The specification provides an example of a message that includes packets with three nested layers having different formats: Ethernet, IP, and TCP. ’163 Fig. 4; 1:27-37; 5:32-57; 6:48-57. In this example, the message has a start point (defined by the initiation of a TCP connection) and an end point (defined by the termination of a TCP connection), which clearly delineates the message. RFC 793. The Requestor Juniper agrees that the ’163 “patent[] claim[s] an approach to processing packets of data that starts by analyzing the *first packet of a message* in order to figure out how best to process the *remaining packets in the message....*” Juniper Summary Judgment motion at 2; *id.* at 3 (“This dynamically identified sequence is then stored so it can be used in processing *each subsequent packet of the same message*”) (emphases added).

message.” Markman Order at 12-13, *Implicit Networks, Inc. v. Juniper Networks, Inc.*, No. 10-CV-4234-SI (N.D. Cal. Feb. 29, 2012).

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