

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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APPLE INC.,  
Petitioner

v.

MPH TECHNOLOGIES OY,  
Patent Owner

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Case IPR2019-00820  
U.S. Patent No. 7,937,581

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**PETITIONER'S REPLY TO PATENT OWNER'S RESPONSE  
UNDER 37 C.F.R. § 42.23**

**Mail Stop PATENT BOARD**  
Patent Trial and Appeal Board  
U.S. Patent & Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

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**PETITIONER'S EXHIBIT LIST**

<b><i>Apple (EX) Exhibit #</i></b>	<b><i>Description</i></b>
<b>1001</b>	U.S. Patent No. 7,937,581 to Vaarala <i>et al.</i> (“581 patent”)
<b>1002</b>	Declaration of Dr. David Goldschlag in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 7,937,581 (“Goldschlag Decl.”)
<b>1003</b>	Prosecution History of U.S. Patent No. 7,937,581 (“Prosecution History”)
<b>1004</b>	U.S. Patent No. 6,904,466 to Ishiyama, <i>et al.</i> (“Ishiyama”)
<b>1005</b>	U.S. Patent No. 7,028,337 to Murakawa (“Murakawa”)
<b>1006</b>	U.S. Patent No. 6,976,177 to Ahonen (“Ahonen”)
<b>1007</b>	U.S. Patent No. 6,954,790 to Forsl�w (“Forsl�w”)
<b>1008</b>	S. Frankel, Demystifying the IPsec Puzzle, Artech House, Inc., 2001 (“Frankel”)
<b>1009</b>	W. Stallings, IP Security - The Internet Protocol Journal – Volume 3, No. 1, March 2000 (“Stallings”)
<b>1010</b>	Mobility-aware IPsec ESP tunnels, Francis Dupont, IETF Draft Posted February 22, 2001 (“Dupont”)
<b>1011</b>	RFC2401 - S. Kent, and R. Atkinson, Security Architecture for the Internet Protocol, RFC2401, The Internet Society, November 1998 (“RFC 2401”)
<b>1012</b>	RFC793 - Transmission Control Protocol, Darpa Internet Program Protocol Specification, September 1981 (“RFC 793”)
<b>1013</b>	U.S. Patent No. 7,079,499 to Akhtar <i>et al.</i> (“Akhtar”)
<b>1014</b>	U.S. Patent No. 7,174,018 to Patil <i>et al.</i> (“Patil”)
<b>1015</b>	U.S. Patent No. 6,418,130 to Cheng <i>et al.</i> (“Cheng”)
<b>1016</b>	Curriculum Vitae of Dr. David Goldschlag
<b>1017</b>	Declaration of Sandy Ginoza for IETF (Regarding RFC2401 and RFC793) (“Ginoza Decl.”)
<b>1018</b>	Declaration of Alexa Morris for IETF (Regarding “Mobility-aware IPsec ESP tunnels” by Dupont) (“Morris Decl.”)
<b>1019</b>	U.S. Patent No. 7,620,810 to Vaarala <i>et al.</i> (“Vaarala”)

<i>Apple (EX) Exhibit #</i>	<i>Description</i>
<b>1020</b>	Prosecution History of U.S. Patent No. 7,620,810 (“’810 Prosecution History”)
<b>1021</b>	Transcript of the Deposition of Dr. George N. Rouskas, March 20, 2020 (“Rouskas Depo.”)
<b>1022</b>	Declaration of Dr. David Goldschlag in Support of Petitioner’s Reply to Patent Owner’s Response (“Second Goldschlag Decl.”)

## I. Introduction

The Board should find unpatentable all claims of the '581 patent because Apple has shown that the prior art renders all claims invalid. MPH raises no new arguments in its Patent Owner Response (POR), but rather repeats the unavailing arguments made in its Patent Owner Preliminary Response (POPR). The Board should again reject those arguments as it did in the Institution Decision.

Essentially, MPH makes one argument as to why the combination of Ishiyama and Murakawa does not render obvious the claims of the '581 patent—that Ishiyama's "correspondent host" is not a "security gateway." *See* POR, 27-45. But the Board should reject this argument because it is based on an improper and unnecessary claim construction, mischaracterizes Apple's contentions, and ignores the teachings of Ishiyama and Murakawa.

## II. The Board Should Reject MPH's Improper Claim Construction

Disputed Constructions	
Apple	<b>Security gateway:</b> Plain and ordinary meaning.
MPH	<b>Security gateway:</b> "gateway that provides additional security functionality, such as firewall functionality." POR, 11.  <b>Gateway:</b> "an intermediary system with two or more communication interfaces that interconnects different networks and can forward packets it receives from one network on to another network." POR, 11.

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