

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

APPLE INC.,
Petitioner

v.

MPH TECHNOLOGIES OY,
Patent Owner

Case IPR2019-00819
U.S. Patent No. 7,620,810

**PETITION FOR *INTER PARTES* REVIEW OF
U.S. PATENT NO. 7,620,810**

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EXHIBIT LIST

<i>Apple (EX) Exhibit #</i>	<i>Description</i>
1001	U.S. Patent No. 7,620,810 (“810 patent”).
1002	Declaration of Dr. David Goldschlag in Support of Petition for <i>Inter Partes</i> Review of U.S. Patent No. 7,620,810 (“Goldschlag Decl.”).
1003	Prosecution History of U.S. Patent No. 7,620,810 (“Prosecution History”).
1004	U.S. Patent No. 6,904,466 to Ishiyama <i>et al.</i> (“Ishiyama”).
1005	U.S. Patent No. 7,028,337 to Murakawa (“Murakawa”).
1006	U.S. Patent No. 6,976,177 to Ahonen (“Ahonen”).
1007	U.S. Patent No. 6,954,790 to Forsl�w (“Forsl�w”).
1008	Demystifying the IPsec Puzzle, Sheila Franklel, Published 2001.
1009	IP Security - The Internet Protocol Journal – Volume 3, No. 1, William Stallings, Published March 2000.
1010	Mobility-aware IPsec ESP tunnels, Francis Dupont, IETF Draft Posted February 22, 2001. https://tools.ietf.org/html/draft-dupont-movesptun-00 (“Dupont”).
1011	RFC2401 - S. Kent, and R. Atkinson, Security Architecture for the Internet Protocol, RFC2401, November 1998. https://tools.ietf.org/html/rfc2401.html (“RFC2401”).
1012	RFC793 – Information Science Institute, Transmission Control Protocol, September 1981 (“RFC793”).
1013	U.S. Patent No. 7,079,499 to Akhtar <i>et al.</i> (“Akhtar”).
1014	U.S. Patent No. 7,174,018 to Patil <i>et al.</i> (“Patil”).
1015	U.S. Patent No. 6,418,130 to Cheng <i>et al.</i> (“Cheng”).
1016	Curriculum Vitae of Dr. David Goldschlag.
1017	Declaration of Sandy Ginoza for IETF (Regarding RFC2401 and RFC793).
1018	Declaration of Alexa Morris for IETF (Regarding “Mobility-aware IPsec ESP tunnels” by Dupont)

I. Introduction

Apple Inc. petitions for *inter partes* review of claims 1-7 of United States Patent No. 7,620,810 (“’810 patent”) to Vaarala *et al.*, titled “Method and Network for Ensuring Secure Forwarding of Messages.” Ex. 1001, ’810 patent. The Petition demonstrates that all 7 claims of the ’810 patent are unpatentable.

The ’810 patent allegedly solved Internet Protocol Security (“IPSec”) operability problems for mobile devices. As will be further clarified below, it does not. Rather, IPSec problems were well-known and solved long before the earliest priority date of the ’810 patent. *See, e.g.*, Ex. 1008, Frankel, 3, 129-132; Ex. 1010, Dupont, 1; Ex. 1002, Goldschlag Decl., ¶¶29-46. IPSec refers to a set of protocols developed in the early 1990s that provides for the establishment and maintenance of secure communication channels between devices. IPSec was not developed for mobile devices and operability problems arose when attempts were made to apply IPSec to mobile devices. Specifically, as mobile devices roam between networks, their IP addresses change. *See* Goldschlag Decl., ¶¶29-46. This presented a problem for IPSec because it relies on fixed IP addresses for the endpoints of a connection. *Id.* Because of this IPSec limitation, a mobile device needed to renegotiate its connection as it traveled between networks and obtained new IP addresses, which was inefficient and resulted in connection issues. *Id.*

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