# UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE PATENT TRIAL AND APPEAL BOARD

GOOGLE INC., Petitioner

v.

VEDANTI SYSTEMS LIMITED, Patent Owner

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Case IPR2016-00212<sup>1</sup> Patent 7,974,339 B2

## PETITIONER'S REPLY

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

<sup>&</sup>lt;sup>1</sup> Case IPR2016-00215 has been consolidated with this proceeding.

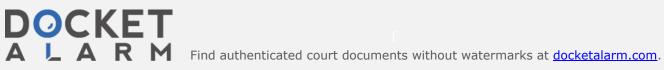


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IV.	IPR2016-00212		
	A.	The claimed "inventions" of the '339 patent are rendered obvious by Spriggs in view of Golin	
	B.	Spriggs in view of Golin discloses "analysis" and "pixel selection" systems as recited in claims 1, 6, and 13	
	C.	Spriggs in view of Golin discloses separate and distinct "region data" and "pixel data."	
	D.	Spriggs in view of Golin discloses a "pixel selection system receiving the region data and generating one set of pixel data for each region" as recited in claims 1, 6, and 13	
	E.	Spriggs in view of Golin discloses "selecting one of two or more sets of pixel data based on the optimized matrix data" as recited in claims 7 and 9.	
	F.	Spriggs in view of Golin discloses "selecting a set of pixel data for each region" as recited in Claims 10 and 1221	
V.	IPR2016-0021523		
	A.	Belfor's approach of dividing a frame into uniform sized blocks can be substituted with Thyagarajan's subdivision approach, which generates non-uniform sized blocks	



	В.	Incorporating the non-uniform block sizes of Thyagarajan with
		Belfor's encoding and decoding process was well within the ability of a POSA.
	C.	Belfor in view of Thyagarajan and further in view of Golin discloses the "region data," the "data receiving system receiving the region data and generating a display," and the "display generation system receiving pixel location data" as recited in claim 1
	D.	Belfor in view of Thyagarajan and further in view of Golin discloses the "assembling" steps of claims 7 and 10
	E.	Dr. Grindon's visualizations of regions in Belfor was provided simply to demonstrate that even multiple contiguous uniform blocks in Belfor can logically constitute non-uniform regions
	F.	The Petition did not foster any misconceptions about the cited references
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#### I. Introduction

U.S. Patent Number 7,974,339 ('339 patent) discloses a basic approach to reducing the amount of data transmitted for an image. The process described in the '339 patent divides an image into multiple regions. For each region, rather than transmitting all the pixels, the process transmits at least one pixel to represent the entire region. As demonstrated in Google's two Petitions, the '339 patent's approach was well known and not patentable.

In the Patent Owner Response (POR), Vedanti asserts one line of attack against the Spriggs-based grounds, and another line of attack against the Belfor-based grounds. Specifically, all of Vedanti's challenges to the Spriggs-based grounds contend that the Spriggs-Golin combination fails to include an "analysis system" and a "pixel selection system." All of Vedanti's challenges to the Belfor-based grounds contend that a POSA could not have combined Belfor and Thyagarajan.

As detailed below, Vedanti is wrong. As identified in the IPR2016-00212 Petition, the transmitter in the Spriggs-Golin combination includes both an "analysis system" and a "pixel selection system." (IPR2016-00212 Petition, 26-31). As further explained in the IPR2016-00215 Petition, a POSA would have combined Belfor with Thyagarajan to arrive at the claims of the '339 patent. (IPR2016-00215 Petition, 22-26.)



Google therefore requests that the Board cancel claims 1, 6, 7, 9, 10, 12, and 13 of the '339 patent as unpatentable in both the IPR2016-00212 and IPR2016-00215 proceedings.

### II. Person Of Ordinary Skill In The Art

Google	Vedanti
B.S. degree in Electrical	a technical degree in Electrical
Engineering, Computer Engineering,	Engineering, Computer Science or
Computer Science, or an equivalent	equivalent curriculum with
field, as well as at least one year of	coursework in image processing and
academic or industry experience in	at least one year of hands on
image processing or data	experience with compression and
transmission	communication techniques
	Or
	degree in Electrical Engineering,
	Computer Science or equivalent
	curriculum with coursework in
	compression and communication
	and at least one year of hands on
	experience in image compression

Attempting to disqualify Google's expert Dr. Grindon, Vedanti proposes a standard for a person of ordinary skill in the art (POSA) that is directly at odds with the '339 patent. Vedanti's proposed standard requires a POSA to have either coursework in compression or one year of hands-on experience with compression. But the '339 patent is explicit that its alleged inventions involve "data transmission [] that use[s] data optimization *instead*<sup>2</sup> of compression." (GOOG 1001, 1:32-39;

<sup>&</sup>lt;sup>2</sup> Emphasis added unless otherwise indicated.



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