Filed on behalf of TQ Delta LLC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

CISCO SYSTEMS, INC. and ARRIS GROUP, INC., Petitioner,

v.

TQ DELTA, LLC, Patent Owner.

Case IPR2016-01007¹ Patent No. 8,432,956 B2

PATENT OWNER'S MOTION FOR OBSERVATION

¹ ARRIS Group, Inc., who filed a Petition in IPR2017-00422, has been joined in this proceeding.



Patent Owner's Motion for Observation IPR2016-01007

Patent No. 8,432,956

Patent Owner TQ Delta, LLC ("Patent Owner") submits this motion for observation regarding cross-examination of Dr. Sayfe Kiaei a reply declarant for Petitioners. Patent Owner submits the following Observation based on Dr. Kiaei's testimony taken on June 26, 2017.

Observation #1: In Ex. 2011, on page 45, line 10 to page 46, line 16, with reference to claim 1 of the '956 patent, Dr. Kiaei testified that "the communication channel is a channel within a much broader frequency band. And it could be subchannel that -- subchannel or the broader frequency band. It could be a subchannel of a much broader frequency band that this subchannel of that broader frequency band is used for communication channel, specifically for the rest of the patent that claimed that it discussed it." This testimony is relevant to Dr. Kiaei's declaration testimony that "[a] carrier may be another term for a sub-channel when the sub-channel's frequency is modified to carry information" (Ex. 1009 at ¶ 69) and "a sub-channel has its own frequency." See Ex. 1009 at ¶ 67. The testimony is relevant because it undermines the credibility of Dr. Kiaei's declaration testimony concerning the claimed "subchannel" recited in the '956 patent claims and the accuracy of Dr. Kaiei declaration testimony that Milbrandt's "subfrequency" is the claimed "subchannel."



Observation #2: In Ex. 2011, on page 31, lines. 11-12, Dr. Kiaei testified that "subbands and carriers in OFDM are -- and ADSL -- and ADSL are the same." Separately, on page 20, lines 21-22, Dr. Kiaei testified that subbands and carriers are not the same. ("Q. Is 4 kilohertz the spacing between carriers? A. We're not talking about carriers here right now. We're talking about 256 subbands.") The testimony is relevant because Dr. Kaiei contradicts himself and this contradiction goes to the credibility of his declaration testimony relating to the claimed subchannel. *See* Ex. 1100 at ¶¶ 6, 8 and 9.

Observation #3: In Ex. 2011, on page 91, line 1 to page 92, line 19, with reference to "annotated figure on pg. 13 of" his reply declaration, Ex. 1100, Dr. Kiaei testified, *inter alia*, that Petitioner's definition of subchannel "is a broad definition of a subchannel" and that the definition would include "all the frequencies in that red box" of the figure or "a portion actually from 30 hertz to 11.04 kilohertz or other portions of frequencies. . . ." This is relevant to Dr. Kiaei's declaration testimony concerning his understanding of "sub-channel" in the context of the '956 patent that "[a]channel may be divided into multiple subchannels, where each sub-channel has its own frequency. For example, the broadband communications channel of the '956 patent is formed by multiple carriers. . . ." Ex. 1009 at ¶ 58. This testimony is relevant because it goes to Dr.



Kiaei's claim construction analysis of the claimed "subchannel" and application of

the construction to the claimed "subchannel" and Milbrandt's (Ex. 1011) sub-

frequency. Further, this testimony is relevant because it contradicts Dr. Kiaei's

declaration testimony and goes to the credibility and accuracy of his declaration

testimony equating Milbrandt's "sub-frequency" with the claimed "sub-channel."

Observation #4: In Ex. 2011, at page 84, lines 8-19, in response to a

question if a subchannel is associated with a frequency, Dr. Kiaei responded that a

frequency band is associated with a subchannel. This is relevant to Dr. Kiaei's

declaration testimony that "[a] carrier may be another term for a sub-channel when

the sub-channel's frequency is modified to carry information" (Ex. 1009 at ¶ 69)

and "a sub-channel has its own frequency." See Ex. 1009 at ¶ 67. This testimony

is also relevant because it undermines Dr. Kiaei's credibility.

Observation #5: In Ex. 2011, on page 31, lines 1-12, Dr. Kiaei agreed that

the Elahi reference (Petitioner's Ex. 1108 at pages 108 and 109) recites that

"[e]ach subfrequency is an independent channel[]"and that "ADSL uses DMT

encoding to divide the bandwidth of the channel into multiple subchannels," and he

further testified that he understands Elahi's subfrequency "to be the subfrequency

mentioned in Milbrandt[.]" This testimony is relevant to Dr. Kiaei's declaration

testimony at Ex. 1009 at ¶ 59 regarding his understanding that "Milbrandt's 'sub-



frequency" "correspond[s] to the 'subchannel' in the '956 patent." Dr. Kiaei's testimony that Elahi and Milbrandt's subfrequency is a channel and that "ADSL uses DMT encoding to divide the bandwidth of the channel into multiple subchannels" is relevant because it is inconsistent with Dr. Kiaei's declaration testimony that Milbrandt's sub-frequency is the claimed "subchannel." This is relevant because it undermines the credibility and accuracy of Dr. Kiaei's declaration testimony relied upon in the institution decision (Paper 8 at p. 15) that "Milbrandt's 'sub-frequency'" "correspond[s] to the 'subchannel' in the '956 patent."

Observation #6: In Ex. 2011, on page 104, line 19 to page 111, line 24, Dr. Kiaei testified that the single value for Transmit Power Spectrum Density ("PSD") communicated in a message in the ANSI T1.413 standard (Ex. 1014 at p. 101) could be a single value for the entire upstream or downstream channel, rather than separate values per subchannel. *See, e.g.* Ex. 2011, page 106, lines 4-8 ("Q. Okay. But that's [3-bit value] for the entire upstream or downstream channel? THE WITNESS: That's for the portion of the upstream or downstream channel. It could be, but I need to look at it carefully."); Ex. 2011, page 111, lines 13-18 ("Q. So in your opinion, these 3-bit – this 3-bit value does not represent the PSD for the entire upstream or downstream channel? THE WITNESS: That's not what I said.") Dr.



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