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### UNITED STATES PATENT AND TRADEMARK OFFICE

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## BEFORE THE PATENT TRIAL AND APPEAL BOARD

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CISCO SYSTEMS, INC. and DISH NETWORK, LLC Petitioners

V.

TQ DELTA, LLC Patent Owner

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Case No. IPR2016-01021<sup>1</sup>
Patent No. 8,718,158

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## PATENT OWNER RESPONSE UNDER 37 CFR § 42.120

<sup>&</sup>lt;sup>1</sup>DISH Network, L.L.C., who filed a Petition in IPR2017-00255, has been joined as a petitioner in this proceeding.



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### I. INTRODUCTION

Patent Owner TQ Delta, LLC submits this Patent Owner Response under 37 CFR § 42.120 to the Petition filed by Cisco, Inc. requesting *inter partes* review for claims 1–30 of U.S. Pat. No. 8,718,158 ("the '158 patent").

The Board instituted *inter partes* review on five grounds:

- 1. whether claims 1, 2, 4, 15, 16, and 18 of the '158 patent are unpatentable under 35 U.S.C. § 103(a) over U.S. Pat. No. 6,144,696 ("Shively") and U.S. Pat. No. 6,625,219 ("Stopler");
- 2. whether claims 3, 5, 14, 17, 19, and 20–30 of the '158 patent are unpatentable under 35 U.S.C. § 103(a) over Shively, Stopler, and U.S. Pat. No. 6,424,646 ("Gerszberg");
- 3. whether claims 6, 9, 10, 12, 20, 23, 24, and 26 of the '158 patent are unpatentable under 35 U.S.C. § 103(a) over Shively, Stopler, and U.S. Pat. No. 4,924,516 ("Bremer");
- 4. whether claims 8, 11, 13, 22, 25, and 27 of the '158 patent are unpatentable under 35 U.S.C. § 103(a) over Shively, Stopler, Bremer, and Gerszberg; and
- 5. whether claims 7 and 21 of the '158 patent are unpatentable under 35 U.S.C. § 103(a) over Shively, Stopler, Bremer, and U.S. Pat. No. 5,515,369 ("Flammer").

After institution, additional parties—including: Dish Network, LLC; Comcast Cable Communications, LLC; Cox Communications, Inc.; Time Warner



Cable Enterprises LLC; Verizon Services Corp.; and ARRIS Group, Inc.—filed petitions that are identical in all substantive respects to the Cisco Petition. *See* IPR2017-00255 and IPR2017-00417. These additional parties moved to join as petitioners, and collectively with Cisco, are referred to herein as "Petitioners." For brevity, this Patent Owner response will cite only to the Cisco Petition and its corresponding exhibits.

In the Institution Decision, the Board did not reach the merits of Patent Owner's arguments in the Patent Owner Preliminary Response, but rather characterized them as "attorney argument" and accepted Petitioners' expert declarant's testimony as true because Patent Owner did not support it's argument with expert testimony. This Patent Owner Response is fully supported by the cited evidence, including the declaration of Dr. Robert T. Short.

The Petition fails to prove, by a preponderance of the evidence, that any claim of the '158 patent is unpatentable because there is no credible or accurate evidence demonstrating why one having ordinary skill in the art would have combined Shively and Stopler. Petitioners' rationale for the combination fundamentally relies on the contention that Shively suffers from a problem (*i.e.*, a problem with its "peak-to-average power ratio" or "PAR") that Stopler solves the purported problem by performing "phase scrambling." But, Shively does not have a PAR problem so there would have been no motivation to look for a solution.



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