**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

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**BEFORE THE PATENT TRIAL AND APPEAL BOARD**

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ARRIS SOLUTIONS, INC.,
Petitioner,

v.

REALTIME ADAPTIVE STREAMING LLC,
Patent Owner

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Case IPR2019-00674
Patent 8,934,535

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**PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 8,934,535**

## TABLE OF CONTENTS

## EXHIBIT LIST

| Exhibit No. | Description |
|---|---|
| 1001 | U.S. Patent No. 8,934,535 to Fallon *et al.* ("'535 Patent") |
| 1002 | Prosecution File History for the '535 Patent |
| 1003 | Expert Declaration of James A. Storer |
| 1004 | Japanese Patent Application Publication No. H11331305 to Imai *et al.* ("Imai"). |
| 1005 | Certified English Translation of Imai |
| 1006 | U.S. Patent No. 6,507,611 to Imai *et al.* ("Imai '611") |
| 1007 | U.S. Patent No. 5,675,789 to Ishii *et al.* ("Ishii") |
| 1008 | Excerpt from Andreas Spanias *et al.*, Audio Signal Processing and Coding (John Wiley & Sons, Inc., 2007) |
| 1009 | Excerpt from Raymond Westwater *et al.*, Real-Time Video Compression Techniques and Algorithms (Kluwer Academic Publishers, 1997) |
| 1010 | Excerpt from David Salomon, A Guide to Data Compression Methods (Springer-Verlag New York, Inc., 2002) |
| 1011 | International PCT Application Publication WO 00/51243 to Park |
| 1012 | U.S. Patent No. 5,873,065 to Akagiri *et al.* |
| 1013 | Memorandum Opinion and Order, *Realtime Data, LLC v. Rackspace US, Inc. et al.*, No. 6:16-CV-00961, Dkt. 183 (E.D. Tex. June 14, 2017) |
| 1014 | Memorandum Opinion and Order, *Realtime Data, LLC v. Actian Corp. et al.*, No. 6:15-CV-00463, Dkt. 362 (E.D. Tex. July 28, 2016) |
| 1015 | U.S. Patent No. 6,195,024 to Fallon |
| 1016 | Notice of Interested Parties, *Realtime Adaptive Streaming, LLC v. Hulu LLC*, No. 2:17-CV-07611, Dkt. 18 (C.D. Cal. Oct. 24, 2017) |

## I. INTRODUCTION

Petitioner ARRIS Solutions, Inc., requests *inter partes* review of Claims 1-14 of U.S. Patent No. 8,934,535 (Ex. 1001). The '535 Patent refers to methods for compressing data with an asymmetric data compressor. According to the '535 Patent, these techniques aim to increase the storage/retrieval bandwidth of mass storage devices which traditionally suffer from "profound read/write data rate limitations" that "severely limit" data-dependent applications. Ex. 1001 at 2:53-61.

But the techniques of the '535 Patent were known in the prior art well before the priority date of the '535 Patent. Specifically, to obtain allowance of independent Claim 1, the Applicant added the feature of using "asymmetric data compression" to differentiate from anticipatory prior art. Ex. 1002 at 435, 411. Asymmetric compression algorithms and the ability to select between compression algorithms, however, were widely used in the compression field and extensively described in the prior art. Ex. 1003 at 74-78; *see, e.g.,* Ex. 1005; Ex. 1007.

## II. GROUNDS FOR STANDING

Petitioners certify that the '535 Patent is eligible for *inter partes* review. Petitioners further certify that they are not barred or estopped from requesting this *inter partes* review on the grounds identified herein.

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