505247471 12/20/2018

PATENT ASSIGNMENT COVER SHEET

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SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	ASSIGNMENT

CONVEYING PARTY DATA

Name	Execution Date
CARL L. DAUN	12/10/2018
JAMES J. BRYLA	12/10/2018
JEFFREY R. SHRODA	12/12/2018

RECEIVING PARTY DATA

Name:	ARRIS ENTERPRISES LLC
Street Address:	3871 LAKEFIELD DRIVE
City:	SUWANEE
State/Country:	GEORGIA
Postal Code:	30024

PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	16227425

CORRESPONDENCE DATA

Fax Number: (678)473-8095

Correspondence will be sent to the e-mail address first; if that is unsuccessful, it will be sent

using a fax number, if provided; if that is unsuccessful, it will be sent via US Mail.

Phone: (215) 323-1086

Email: ARRIS.docketing@arris.com

ARRIS ENTERPRISES LLC LEGAL DEPT - DOCKE **Correspondent Name:**

Address Line 1: 101 TOURNAMENT DRIVE

Address Line 4: HORSHAM, PENNSYLVANIA 19044

ATTORNEY DOCKET NUMBER:	ARR01504
NAME OF SUBMITTER:	STEWART M. WIENER
SIGNATURE:	/Stewart M. Wiener/
DATE SIGNED:	12/20/2018

Total Attachments: 4

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PATENT REEL: 047831 FRAME: 0649 505247471

ASSIGNMENT

WHEREAS we, Carl L. Daun, Jeffrey R. Shroda, James J. Bryla, (hereinafter collectively referred to
as ASSIGNOR), have invented certain inventions and improvements entitled "SYSTEMS AND
METHODS FOR IMPROVING ARP/ND PERFORMANCE ON HOST COMMUNICATION
DEVICES" disclosed in Patent Docket Number ARR01504, and we hereby authorize and request a
designated attorney associated with Customer No. 21924, to insert here in parentheses (Application
Number, filed) the application number and filing date of said
application when known; as filed in the United States Patent and Trademark Office; and,

WHEREAS, ARRIS Enterprises LLC, a limited liability company formed under the laws of Delaware, having a principal place of business at 3871 Lakefield Drive, Suwanee, Georgia 30024 (hereinafter referred to as ASSIGNEE), is desirous of acquiring the entire interest in, to, and under said invention and the United States Letters Patent to be obtained therefore:

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged, and for other good and valuable consideration, ASSIGNORS hereby sell, assign, and transfer to ASSIGNEE the full and exclusive right, title and interest to said invention and all Letters Patent of the United States to be obtained therefore on said patent application, design patent application, or any continuation, continuation-in-part, divisional, reexamination, renewal, substitute, or reissue thereof and in and to all Letters Patent and all Convention and Treaty rights of all kinds, in all countries throughout the world for said invention for the full term or terms for which the same may be granted.

ASSIGNOR hereby covenants that no assignment, sale, agreement, or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNOR further covenants that ASSIGNOR will promptly provide ASSIGNEE, upon its request, with all pertinent facts and documents relating to said application, said invention, and said Letters Patent as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments, or affidavits required to apply for, obtain, maintain, and enforce said application, said invention and said Letters Patent which may be necessary or desirable to carry out the purposes hereof.

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PATENT REEL: 047831 FRAME: 0650

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Carl L. Daun

United States	of America)
State of	TUCINOIS) SS
County of	Cook)

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that Carl L. Daun, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 10 day of December, 2018.

My commission expires: NOVEM ber 29, 2021

Notary Public Signature

CISA NOLAN

Printed Name of Notary Public

LISA NOLAN Official Seal Notary Public -- State of Illinois My Commission Expires Nov 29, 2021

12/10/2018	James & Brifa
Date	James J. Bryla
United States of America)
State of ICLINDIS) SS
County of Cook)

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that **James J. Bryla**, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 10 day of December, 2018.

My commission expires: Novembe	, d9, 2021
A R	LISA NOLAN
Notary Public Signature	Official Seal Notary Public State of Illinois
LISA NOCAN	My Commission Expires Nov 29, 2021
Printed Name of Notary Public	

12/12/2018	Myry R, M
Date	Jeffrey R. Shroda
United States of America)
State of ILLINOIS) SS
County of Cook)

The undersigned Notary Public in and for the County and State aforesaid, do hereby certify that **Jeffrey R. Shroda**, whose name is subscribed to the foregoing instrument, appeared before me this day in person and acknowledged that they signed, sealed and delivered the instrument as their free and voluntary act and deed for the uses and purposes therein set forth.

Given under my hand and notarial seal this 12 day of December, 2018.

My comprission expires: November 29, 2021

Notary Public Signature

Printed Name of Notary Public

LISA NOLAN Official Seat Notary Public – State of Illinois My Commission Expires Nov 29, 2021