

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
TYLER DIVISION**

PARITY NETWORKS LLC,

*Plaintiff,*

v.

ERICSSON INC.,

*Defendant.*

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CIVIL ACTION NO. 6:17-cv-00526

**JURY TRIAL DEMANDED**

**ORIGINAL COMPLAINT**

Plaintiff Parity Networks LLC (“Plaintiff” or “Parity Networks”), by and through its attorneys, for its Original Complaint against Ericsson Inc. (“Defendant” or “Ericsson”), and demanding trial by jury, hereby alleges as follows:

**I. NATURE OF THE ACTION**

1. This is an action for patent infringement arising under the patent laws of the United States, 35 U.S.C. §§ 271, *et seq.*, to enjoin and obtain damages resulting from Defendant’s unauthorized use, sale, and offer to sell in the United States of products, methods, processes, services and/or systems that infringe Parity Networks’ United States patents, as described herein.

2. Ericsson manufactures, provides, uses, sells, offers for sale, imports, and/or distributes infringing products and services; and encourages others to use its products and services in an infringing manner, including their customers, as set forth herein.

3. Parity Networks seeks past and future damages and prejudgment and post judgment interest for Ericsson’s past infringement of the Patents-in-Suit, as defined below.

## II. PARTIES

4. Plaintiff Parity Networks is a limited liability company organized and existing under the laws of the State of Texas. Parity Networks' registered agent for service of process in Texas is InCorp Services, Inc., 815 Brazos Street, Suite 500, Austin, Texas 78701.

5. On information and belief, Defendant Ericsson is a corporation organized under the laws of Delaware, having an established place of business in this District at 6300 Legacy Drive, Plano, Texas 75024. Ericsson's registered agent for service of process in Texas is Capitol Corporate Services, Inc., 206 E. 9th Street, Suite 1300, Austin, Texas 78701.

## III. JURISDICTION AND VENUE

6. This is an action for patent infringement which arises under the Patent Laws of the United States, in particular, 35 U.S.C. §§ 271, 281, 283, 284 and 285.

7. This Court has exclusive jurisdiction over the subject matter of this action under 28 U.S.C. §§ 1331 and 1338(a).

8. On information and belief, venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b) because Defendant has a regular and established place of business in this district, transacted business in this District, and has committed and/or induced acts of patent infringement in this district.

9. On information and belief, Defendant Ericsson is subject to this Court's specific and general personal jurisdiction pursuant to due process and/or the Texas Long Arm Statute, due at least to its substantial business in this forum, including: (i) at least a portion of the infringements alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct, and/or deriving substantial revenue from goods and services provided to individuals in Texas and in this Judicial District.

#### IV. FACTUAL ALLEGATIONS

##### PATENTS-IN-SUIT

10. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,252,848 (the “848 Patent”), entitled “System Performance in a Data Network Through Queue Management Based on Ingress Rate Monitoring,” issued on June 26, 2001.

11. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,553,005 (the “005 patent”), entitled “Method and Apparatus for Load Apportionment among Physical Interfaces in Data Routers,” issued on April 22, 2003.

12. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,738,378 (the “378 Patent”), entitled “Method and Apparatus for Intelligent Determination of Data Packets Destined to a Central Processing Unit of a Router or Server on a Data Packet Network,” issued on May 18, 2004.

13. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 6,763,394 (the “394 Patent”), entitled “Virtual Egress Packet Classification at Ingress,” issued on July 13, 2004.

14. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,002,958 (the “958 Patent”), entitled “Method for Load-Balancing With FIFO Guarantees in Multipath Networks,” issued on February 21, 2006.

15. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,103,046 (the “046 patent”), entitled “Method and Apparatus for Intelligent Sorting and Process Determination of Data Packets Destined to a Central Processing Unit of a Router or Server on a Data Packet Network,” issued on September 5, 2006.

16. Parity Networks is the owner of all right, title and interest in and to U.S. Patent No. 7,107,352 (the “352 Patent”), entitled “Virtual Egress Packet Classification at Ingress,” issued on September 12, 2006.

17. Together, the foregoing patents are referred to herein as the “Patents-in-Suit.” Parity Networks is the assignee of the Patents-in-Suit, and has all rights to sue for infringement and collect past and future damages for the infringement thereof.

DEFENDANT’S ACTS

18. Ericsson provides software and services directed to detection, analysis and monitoring of data flow in a data network environment, including the SmartEdge family of routers (“SmartEdge Routers”). The SmartEdge Routers operate in an IP/MPLS environment, as depicted below.

Figure 2 illustrates the router in a Layer 2 network.

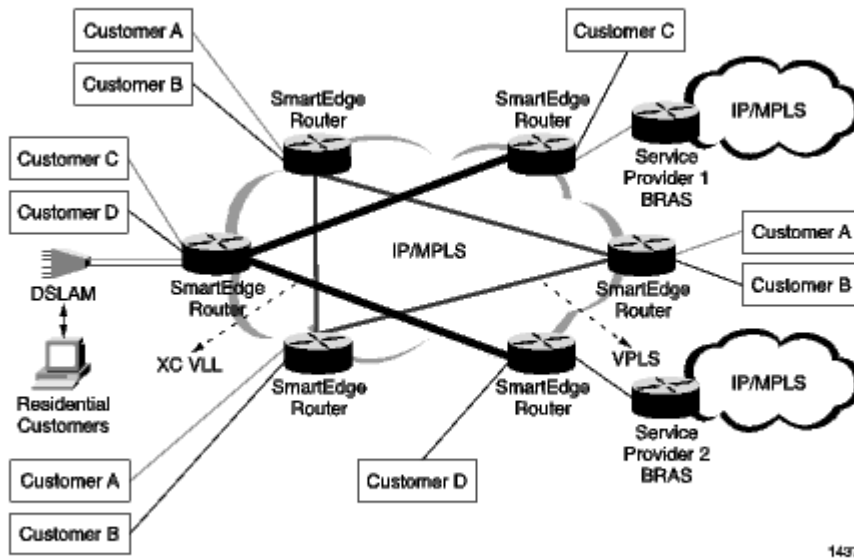


Figure 2 Layer 2 Network

[http://rdoc.ufanet.ru/en\\_lzn7830011\\_1\\_r5f/10\\_22102-CRA1191170\\_1Uen.B.html#chl-seos-with-mob-solutions](http://rdoc.ufanet.ru/en_lzn7830011_1_r5f/10_22102-CRA1191170_1Uen.B.html#chl-seos-with-mob-solutions).

19. SmartEdge Routers perform traffic classification and process packets in accordance with the classification applied by them. For example, the following excerpt shows Class of Service (CoS) classifications applied by the SmartEdge Routers.

Quality of service

- 802.1p Class of Service (CoS), Differentiated Services Code Point (DSCP), ToS, IP Precedence, and MPLS EXP bits, ATM Cell Loss Priority (CLP) bits
- Packet classification (RFC 2474, 2475, 2597, 2598); DiffServ packet marking by ACL, ingress policing, or BGP attribute based QoS; class-based ingress policing and egress shaping; priority queuing and EDRR; RED and WRED; Hierarchical Scheduling aligned with DSL forum's WT-92 and TR-59 specifications.

<http://archive.ericsson.net/service/internet/picov/get?DocNo=18/28701-FGB101647&Lang=EN&rev=B>.

20. Additionally, the Ericsson SSR 8000 family of Smart Services Routers provides operators with a highly scalable, consolidated platform that offers services for both fixed and mobile network infrastructure. The SSR 8000 family offers services such as IP/MPLS edge routing and Evolved Packet Gateway functionalities. The SSR enables complete network convergence so subscribers can access services from any devices or locations.

21. The Ericsson SSR 8000 family provides the data and control plane scalability needed to deliver the services users are demanding. The SSR 8000 uses the same transport technologies, policy control, and management interface employed by SmartEdge Routers.

22. Ericsson also implements traffic policing, whereby limits are applied to traffic flow and consequences established for packets that exceed these limits—usually applying a higher loss priority—so that if packets encounter downstream congestion, they can be discarded first. A high level depiction is set forth below.

23. The above-referenced products further implement Quality of Service (“QoS”) mechanisms. In that regard, the ingress ports receive packets from a plurality of flows or services. Differentiated Services Code Points (DCSPs) are added to the headers. Packets are directed to output queues upon application of one or more policies.

24. Ericsson, through implementation of the Ericsson IP OS, groups packets into service classes that are marked by source/destination IP address, source/destination port, protocol, application, ingress/egress interface, and ingress/egress interface group. *See* <http://archive.ericsson.net/service/internet/picov/get?DocNo=01/28701-FGB1010192>.

25. Ericsson further instructs its customers regarding the implementation and operation of the accused instrumentalities, including at [https://www.ericsson.com/ourportfolio/it-and-cloud-products/ssr-8000-family?nav=productcategory024%7Cfcb\\_101\\_0192](https://www.ericsson.com/ourportfolio/it-and-cloud-products/ssr-8000-family?nav=productcategory024%7Cfcb_101_0192).

26. On information of belief, Defendant Ericsson also implements contractual protections in the form of license and use restrictions with its customers to preclude the unauthorized reproduction, distribution and modification of its software.

27. Moreover, on information and belief, Defendant Ericsson implements technical precautions to attempt to thwart customers who would circumvent the intended operation of Ericsson's products.

#### PRIOR KNOWLEDGE OF THE PATENTS-IN-SUIT

28. By letters dated October 5, 2016 and November 28, 2016, Ericsson was provided (and on information and belief actually received) notice of the Patents-in-Suit, and consequently has actual or constructive knowledge of each of them.

29. At Ericsson's request, the foregoing communications were retransmitted directly to Ericsson's counsel, Mr. Andreas Iwerback, on or about January 10, 2017. Consequently, Ericsson has actual knowledge of each of the Patents-in-Suit.

## V. COUNTS OF PATENT INFRINGEMENT

### COUNT ONE INFRINGEMENT OF U.S. PATENT NO. 6,252,848

30. Parity Networks incorporates by reference its allegations in Paragraphs 1-29 as if fully restated in this paragraph.

31. Parity Networks is the assignee and owner of all right, title and interest to the '848 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

32. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 15 of the '848 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '848 Patent. Defendant Ericsson is thus liable for direct infringement of the '848 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SmartEdge Routers, which include multiple ingress ports with output queues and wherein the ingress ports are configured to receive packets from multiple ingress flows and monitor their characteristics. Each packet is marked with a marking based on criteria including the ingress flow rate and the flow profile.

33. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '848 Patent, including actively inducing infringement of the '848 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more

claims of the '848 Patent. Ericsson instructs its customers to make and use the patented inventions of the '848 Patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its SmartEdge Routers to configure class-of-service (CoS) components to classify, police, shape and mark traffic in an infringing manner.

34. As a result of Ericsson's infringement of the '848 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT TWO  
INFRINGEMENT OF U.S. PATENT NO. 6,553,005

35. Parity Networks incorporates by reference its allegations in Paragraphs 1-34 as if fully restated in this paragraph.

36. Parity Networks is the assignee and owner of all right, title and interest to the '005 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

37. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '005 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '005 Patent. Defendant Ericsson is thus liable for direct infringement of the '005 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SmartEdge Routers, which includes multiple ports with output queues and wherein the ingress ports are configured to receive packets from multiple ingress flows. The SmartEdge Routers route packets



having a plurality of candidate egress ports, including identifying a set of egress ports based on a source IP address.

38. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '005 Patent, including actively inducing infringement of the '005 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '005 Patent. Ericsson instructs its customers to make and use the patented inventions of the '005 patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its routers to implement link aggregation group (LAG), hashing and to choose a set of egress ports in an infringing manner, as set forth above.

39. As a result of Ericsson's infringement of the '005 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT THREE  
INFRINGEMENT OF U.S. PATENT NO. 6,738,378

40. Parity Networks incorporates by reference its allegations in Paragraphs 1-39 as if fully restated in this paragraph.

41. Parity Networks is the assignee and owner of all right, title and interest to the '378 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

42. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '378 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '378 Patent. Defendant Ericsson is thus liable for direct infringement of the '378 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SmartEdge Routers, which includes multiple processors for parallel packet processing and hardware queues of a network access controller (NAC) for queuing the packets according to category.

43. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '378 Patent, including actively inducing infringement of the '378 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '378 Patent. Ericsson instructs its customers to make and use the patented inventions of the '378 Patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its IPOS to sort and process data packets into two or more categories of different priority for processing and a queue for queuing sorted packets destined for the CPU.

44. As a result of Ericsson's infringement of the '378 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FOUR  
INFRINGEMENT OF U.S. PATENT NO. 6,763,394

45. Parity Networks incorporates by reference its allegations in Paragraphs 1-44 as if fully restated in this paragraph.

46. Parity Networks is the assignee and owner of all right, title and interest to the '394 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

47. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 13 of the '394 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '394 Patent. Defendant Ericsson is thus liable for direct infringement of the '394 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SSR 8000 family, which includes ACLs for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination.

48. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 13 of the '394 Patent, including actively inducing infringement of the '394 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '394 Patent. Ericsson instructs its customers to make and use the patented inventions of the '394 Patent by operating Ericsson's products in accordance with Ericsson's specifications.

Ericsson specifically intends its customers to infringe by implementing its routers perform traffic policing using ACL rules to create multiple LUTs, as set forth above.

49. As a result of Ericsson's infringement of the '394 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT FIVE  
INFRINGEMENT OF U.S. PATENT NO. 7,002,958

50. Parity Networks incorporates by reference its allegations in Paragraphs 1-49 as if fully restated in this paragraph.

51. Parity Networks is the assignee and owner of all right, title and interest to the '958 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

52. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '958 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '958 Patent. Defendant Ericsson is thus liable for direct infringement of the '958 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SmartEdge Router family, which support Multipath Label Switching (MPLS), allocates labels to packets and accesses routing bias tables to establish a label switched path (LSP).

53. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '958 Patent, including actively inducing infringement of the '958 Patent under 35 U.S.C. § 271(b). Such inducements include without

limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '958 Patent. Ericsson instructs its customers to make and use the patented inventions of the '958 Patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its routers to perform MPLS in an infringing manner, as set forth above.

54. As a result of Ericsson's infringement of the '958 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT SIX  
INFRINGEMENT OF U.S. PATENT NO. 7,103,046

55. Parity Networks incorporates by reference its allegations in Paragraphs 1-54 as if fully restated in this paragraph.

56. Parity Networks is the assignee and owner of all right, title and interest to the '046 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

57. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '046 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using (including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '046 Patent. Defendant Ericsson is thus liable for direct infringement of the '046 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SmartEdge Routers, which includes multiple processors for parallel packet processing and hardware queues of a network access controller (NAC) for queuing the packets according to category.

58. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 15 of the '046 Patent, including actively inducing infringement of the '046 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '046 Patent. Ericsson instructs its customers to make and use the patented inventions of the '046 Patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its IPOS to sort and process data packets into two or more categories of different priority for processing and a queue for queuing sorted packets destined for the CPU.

59. As a result of Ericsson's infringement of the '046 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

COUNT SEVEN  
INFRINGEMENT OF U.S. PATENT NO. 7,107,352

60. Parity Networks incorporates by reference its allegations in Paragraphs 1-59 as if fully restated in this paragraph.

61. Parity Networks is the assignee and owner of all right, title and interest to the '352 Patent. Parity Networks has the legal right to enforce the patent, sue for infringement, and seek equitable relief and damages.

62. On information and belief, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently directly infringing at least claim 1 of the '352 Patent, as infringement is defined by 35 U.S.C. § 271(a), including through making, using

(including for testing purposes), selling and offering for sale methods and articles infringing one or more claims of the '352 Patent. Defendant Ericsson is thus liable for direct infringement of the '352 Patent pursuant to 35 U.S.C. § 271(a). Exemplary infringing products include the SSR 8000 family, which includes ACLs for filtering and dropping of packets implemented at the ingress port for egress pass/drop determination.

63. On information and belief, at least since the filing of the Original Complaint, Defendant Ericsson, without authorization or license from Parity Networks, has been and is presently indirectly infringing at least claim 1 of the '352 Patent, including actively inducing infringement of the '352 Patent under 35 U.S.C. § 271(b). Such inducements include without limitation, with specific intent to encourage the infringement, knowingly inducing consumers to use infringing articles and methods that Ericsson knows or should know infringe one or more claims of the '352 Patent. Ericsson instructs its customers to make and use the patented inventions of the '352 Patent by operating Ericsson's products in accordance with Ericsson's specifications. Ericsson specifically intends its customers to infringe by implementing its routers perform traffic policing using ACL rules to create multiple LUTs, as set forth above.

64. As a result of Ericsson's infringement of the '352 Patent, Parity Networks has suffered monetary damages, and is entitled to an award of damages adequate to compensate it for such infringement under 35 U.S.C. § 284, but in no event, less than a reasonable royalty.

## **VI. JURY DEMAND**

65. Plaintiff Parity Networks demands a trial by jury of all matters to which it is entitled to trial by jury, pursuant to FED. R. CIV. P. 38.

## **VII. PRAYER FOR RELIEF**

WHEREFORE, Parity Networks prays for judgment and seeks relief against Defendant as follows:

- A. That the Court determine that one or more claims of the Patents-in-Suit is infringed by Defendant Ericsson, either literally or under the doctrine of equivalents;
- B. That the Court award damages adequate to compensate Parity Networks for the patent infringement that has occurred, together with prejudgment and post-judgment interest and costs, and an ongoing royalty for continued infringement;
- C. That the Court permanently enjoin Defendant pursuant to 35 U.S.C. § 283;
- D. That the Court award such other relief to Parity Networks as the Court deems just and proper.

DATED: September 15, 2017

Respectfully submitted,

/s/ Andrew G. DiNovo

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