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*Attorneys for Plaintiffs TELECOMMUNICATIONS  
RESEARCH LABORATORIES d/b/a TR LABS and  
TR TECHNOLOGIES, INC.*

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF NEW JERSEY**

<p>TELECOMMUNICATIONS RESEARCH LABORATORIES d/b/a TR LABS, Canadian Not For Profit Corporation, and TR TECHNOLOGIES, INC., a Canadian Corporation,</p> <p style="text-align: center;">Plaintiffs,</p> <p>v.</p> <p>AT&amp;T CORP., a New York Corporation, and AT&amp;T, Inc., a Delaware Corporation,</p> <p style="text-align: center;">Defendants.</p>	<p>Civil Action No.: 3:12-cv-04950-PGS- DEA</p> <p><b>JURY TRIAL DEMANDED</b></p> <p><b>ELECTRONICALLY FILED</b></p>
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**AMENDED COMPLAINT**

The plaintiffs, Telecommunications Research Laboratories, formerly known as Alberta Telecommunications Research Centre, and doing business as TR Labs

(“TR Labs”), and TR Technologies, Inc. (“TR Tech”) (collectively “plaintiffs”) allege in this matter as follows:

## **FACTUAL BACKGROUND**

### **Plaintiffs**

1. TR Labs is Canada’s largest non-profit research consortium with its membership including universities, companies, and government agencies. TR Labs has offices throughout western Canada, and its principal place of business is 9107 116<sup>th</sup> Street, Edmonton, Alberta, Canada T6G 2V4.

2. Among TR Labs’ members is the University of Alberta in Edmonton, Canada.

3. TR Tech is the exclusive licensee of the patents owned by TR Labs.

### **The TR Labs Patents**

4. TR Labs is the owner by assignment of U.S. Patent No. 6,914,880, entitled *Protection of routers in a telecommunications network* (“the ‘880 patent”), U.S. Patent No. 6,421,349, entitled *Distributed preconfiguration of spare capacity in closed paths for network restoration* (“the ‘349 patent”), and U.S. Patent No. 7,260,059, entitled *Evolution of a telecommunications network from ring to mesh structure* (“the ‘059 patent”), U.S. Patent No. 6,404,734, entitled *Scalable network restoration device* (“the ‘734 patent”), U.S. Patent No. 5,850,505 entitled *Method for preconfiguring a network to withstand anticipated failures* (“the ‘505 patent”), U.S. Patent No. 6,377,543 entitled *Path restoration of networks* (“the ‘543 patent”), and

6,654,379 (“the ‘379 patent”) entitled *Integrated ring-mesh network* (collectively “the TR Labs patents”) (attached as Exhibits A-G).

5. The ‘880 patent issued on July 5, 2005 based upon an application filed on May 19, 1999. The ‘349 patent issued on July 16, 2002 from an application filed on July 11, 1997. The ‘059 patent issued on August 21, 2007 from an application filed on June 28, 2002. The ‘734 patent issued on June 11, 2002 from an application filed on October 6, 1998. The ‘505 patent issued on December 15, 1998 based upon an application filed on November 1, 1995. The ‘543 patent issued on April 23, 2002 based upon an application filed on October 20, 1997. The ‘379 patent issued on November 25, 2003 based upon an application filed on October 7, 1999.

**Dr. Wayne Grover**

6. The first named inventor on the TR Labs patent is TR Labs’ former Chief Scientist in Network Systems Research, Dr. Wayne D. Grover.

7. In addition to his position at TR Labs, Dr. Grover was a Professor in the Department of Electrical and Computer Engineering at the University of Alberta in Edmonton, Canada.

8. Dr. Grover is a Fellow of the Institute of Electronic and Electrical Engineers (“IEEE”), a title conferred on those engineers who have demonstrated outstanding proficiency and have achieved distinction in their profession. He is also a Fellow of the Engineering Institute of Canada, a title awarded by that organization for similar scientific achievement.

9. Among his numerous awards, in 2001-2002, the Natural Science and Engineering Research Council of Canada named Dr. Grover an E.W.R Steacie Fellow, which recognizes highly promising scientists and engineers who are faculty members of Canadian universities. Dr. Grover was awarded the IEEE's 1999 W.R.G. Baker Prize Paper award for the most outstanding paper reporting original work in an IEEE publication, and that same year was named Canada's Outstanding Engineer in Canada by the IEEE.

### **The Defendants**

10. AT&T Corp. is a New York corporation with a principal place of business at One AT&T Way, Bedminster, New Jersey 07921.

11. AT&T, Inc. is a Delaware corporation with a principal place of business at 208 South Akard Street, Dallas, Texas 75202-2233.

12. The defendants operate and/or employ, either directly or indirectly, mesh telecommunications networks in the United States.

13. The defendants operate and/or employ, or have operated or have employed, either directly or indirectly, ring telecommunications networks that have been converted to mesh telecommunication networks in the United States.

14. The mesh telecommunications networks operated and/or employed by the defendants have deployed at least Cisco ONS 15454 Multiservice platforms, Fujitsu ROADM devices, Ciena CoreDirector Multiservice Optical Switches, and/or Cisco CRS-1 routers, in addition to other components that are connected to these devices for the purpose of transmitting voice and data traffic.

15. The mesh telecommunications networks operated and/or employed by the defendants utilize the functionality of the afore-referenced devices in a manner designed to restore the flow of voice and data traffic in the event of the failure of a node, circuit, or path during the normal operation of such networks.

16. The mesh telecommunications networks operated and/or employed by the defendants are designed to, and do, interconnect with one another for the transmission of voice and data traffic both when such networks are in normal operation mode, and when there is a failure of a node, circuit, span or path in such networks

#### **JURISDICTION, VENUE AND JOINDER**

17. The defendants, at all relevant times, have been doing business in this Judicial District.

18. This Court has subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

19. Venue is proper in this Judicial District pursuant to 28 U.S.C. § 1400(b).

20. Each of the defendants utilize the afore-referenced equipment in infringing the TR Labs patents, making this matter arising out of the same transaction, occurrence, or series of transactions or occurrences, and making joinder of the parties in this matter proper pursuant to 35 U.S.C. § 299(a).

#### **COUNT I – INFRINGEMENT OF THE ‘349 PATENT**

21. The plaintiffs incorporate by reference paragraphs 1-20, above.

22. AT&T, Inc. has directly infringed the claims of the '349 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

23. The plaintiffs have been injured by such infringement.

#### **COUNT II – INFRINGEMENT OF THE '059 PATENT**

24. The plaintiffs incorporate by reference paragraphs 1-23, above.

25. AT&T, Inc. has directly infringed the claims of the '059 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

26. The plaintiffs have been injured by such infringement.

#### **COUNT III – INFRINGEMENT OF THE '543 PATENT**

27. The plaintiffs incorporate by reference paragraphs 1-26, above.

28. The defendants have directly infringed the claims of the '543 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP

ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

29. The plaintiffs have been injured by such infringement.

**COUNT IV – INFRINGEMENT OF THE ‘379 PATENT**

30. The plaintiffs incorporate by reference paragraphs 1-29, above.

31. The defendants have directly infringed the claims of the ‘379 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

32. The plaintiffs have been injured by such infringement.

**COUNT V – INFRINGEMENT OF THE ‘505 PATENT**

33. The plaintiffs incorporate by reference paragraphs 1-32, above.

34. AT&T, Inc. has directly infringed the claims of the ‘505 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

35. The plaintiffs have been injured by such infringement.

**COUNT VI – INFRINGEMENT OF THE ‘734 PATENT**

36. The plaintiffs incorporate by reference paragraphs 1-35, above.

37. AT&T, Inc. has directly infringed the claims of the ‘734 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Fujitsu FlashWave 4500 and Cisco 15454 MSPP add-drop multiplexers, Tellabs 7100, Fujitsu FlashWave 7500 and Cisco 15454 MSTP ROADMs and/or Ciena CoreDirectors that are covered by such claims in violation of 35 U.S.C. § 271.

38. The plaintiffs have been injured by such infringement.

**COUNT VII – INFRINGEMENT OF THE ‘880 PATENT**

39. The plaintiffs incorporate by reference paragraphs 1-38, above.

40. AT&T, Inc. has directly infringed the claims of the ‘880 patent by operating, either directly or indirectly, mesh telecommunications networks incorporating Juniper and Cisco multi-label switching protocol routers that are covered by such claims in violation of 35 U.S.C. § 271.

41. The plaintiffs have been injured by such infringement.

**PRAYERS FOR RELIEF**

WHEREFORE, the plaintiffs respectfully request that this Court:

- a) Find that the defendants infringe the TR Labs patents;
- b) Order the defendants to pay the plaintiffs’ damages equal to no less than a reasonable royalty to compensate for the infringement of the TR Labs patents pursuant to 35 U.S.C. § 284;



- c) Order the defendants to pay the plaintiffs' prejudgment interest;
- d) Find this case to be exceptional;
- e) Order the defendants to pay attorneys' fees pursuant to 35 U.S.C. § 285;
- f) Enjoin the defendants from further infringement of the TR Labs patents; and
- g) Award whatever additional relief the Court finds just and equitable.

Respectfully submitted,

s/ Kristine L. Butler

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Date: November 1, 2012

**JURY DEMAND**

TR Labs hereby demands a trial by jury on all issues so triable.

Respectfully submitted,

s/ Kristine L. Butler

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Date: November 1, 2012