

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

CHROMAR SYSTEMS, INC., ET AL.,

Plaintiffs,

v.

ALCATEL-LUCENT S.A., ET AL.,

Defendants.

6:15-CV-163-JDL

LEAD CASE

PATENT CASE

**JURY TRIAL DEMANDED**

**DECLARATION OF LES BAXTER**

My name is Les Baxter and I declare the following:

1. I have been asked by Plaintiffs to provide opinions as one of ordinary skill in the art in this matter regarding the meaning of certain terms in the four Patents-in-Suit, namely United States Patent Nos. 8,155,012 (“the ’012 Patent”); 8,942,107 (“the ’107 Patent”); 8,902,760 (“the ’760 Patent”); and 9,019,838 (“the ’838 Patent”).

**PROFESSIONAL CREDENTIALS**

2. I was employed at Bell Laboratories where I was a Member of the Technical Staff, Technical Manager, and Director in the network cable systems, optical fiber solutions, customer switching systems, and optical networking business units from 1977 through 2001. Since 2001, I have been the Principal of Baxter Enterprises which provides consulting, engineering, and expert witness services specializing in structured cabling systems, local area networks and residential networks.
3. During my thirty-five year career in the networking field I acquired extensive technical expertise and experience in structured cabling (copper and fiber-optic) and physical layer networking in the enterprise, network, and residential markets; local area networks, data communication/networking, protocols (particularly IEEE 1394/FireWire and IEEE 802.3/Ethernet), including connectors; systems engineering (network architecture, product and system specifications and requirements); optical networking; standards strategy and development; switching systems (circuit, packet and optical); prototyping

and product development (hardware and firmware); and commercializing new technology to create successful products and systems.

4. I was named an IEEE fellow in 2009 for my “contributions to high-speed digital communication networks.” I am a registered professional engineer in New Jersey and coauthor of the book Premises Cabling (Thomson Delmar Learning, 3rd ed. 2006) and author of the book Residential Networks (Delmar Thompson Learning, 2006).
5. In June 1972, I received an Associate of Arts and Science degree in Electronic Technology from Delaware Technical Community College. In June 1975, I received the degree of Bachelor of Science in Electrical Engineering from the Rochester Institute of Technology. In June 1977, I received the degree of Master of Science in Electrical Engineering from the University of Delaware.
6. I have participated in numerous standards-setting committees under the auspices of the Electronic Industries Association (EIA); Telecommunications Industries Association (TIA); the Institute of Electrical and Electronic Engineers (IEEE), and the International Standards Organization (ISO). I am currently Chair of the IEEE 1394 Committee relating to High Performance Serial Buses and am a member of the IEEE 802.3 Working Group on Ethernet LANs. I am a member of the IEEE Standards Association, TIA, BICSI, NSPE, and the 1394 Trade Association.
7. I have published more than 30 articles in technical and trade journals and have made presentations at technical conferences on five continents. I am an inventor of eight U.S. Patents.
8. Attached as Exhibit 1 is a copy of my current CV which lists all publications that I authored in the previous 10 years and lists all other cases in which, during the previous 4 years, I have testified as an expert at trial or by deposition.
9. I am being compensated at the rate of \$250 per hour for my study and testimony in this case. My compensation is based solely on the amount of time that I devote to activity related to this case and is in no way affected by any opinions that I render or the outcome of the litigation.

## **LEVEL OF ORDINARY SKILL IN THE ART**

10. In my opinion, a person of ordinary skill in the relevant art with respect to the Patents-in-Suit would have an undergraduate degree or the equivalent in the field of electrical engineering or a related ancillary field, and one to three years of experience with Ethernet networks. Alternatively, a greater length of experience could replace the degree requirement.
11. I am one of ordinary skill in the art.

## **THE USE OF THE INFINITIVE “TO \_\_\_\_”**

12. I understand that Defendants have asked the Court to construe the infinitive “to” in the following claims to mean that the “[t]he action claimed must occur to meet the limitation:
  - ’107 Patent: claims 1, 43, 104, and 111
  - ’760 Patent, claims 1, 58, 69, 73, and 142
  - ’838 Patent, claims 1, 7, 26, 29, 40, and 69
13. I disagree with Defendants’ proposed construction of the infinitive “to.”
14. Defendants’ proposed construction of the term “to” is incorrect because it would be improperly transforming apparatus claims into hybrid apparatus-method claims.
15. A person of ordinary skill in the art would readily understand the term “to” such that it needs no construction. Further, I note that Defendants are not proposing a construction for the word “to,” but seeking to require that the function following the word “to” must be actually performed in order to infringe each claim identified above.
16. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the infinitive “to” as used in these claims means that the claimed apparatus or structure is “configured to” or “designed to” perform the function recited in the claim.
17. For example, claim 1 of the ’107 Patent states the following:
  - A piece of Ethernet terminal equipment comprising:
    - an Ethernet connector comprising first and second pairs of contacts used to carry Ethernet communication signals,
    - at least one path for the purpose of drawing DC current, the at least one path coupled across at least one of the contacts of the first pair

of contacts and at least one of the contacts of the second pair of contacts, *the piece of Ethernet terminal equipment to draw different magnitudes of DC current flow via the at least one path, the different magnitudes of DC current flow to result from at least one condition applied to at least one of the contacts of the first and second pairs of contacts, wherein at least one of the magnitudes of the DC current flow to convey information about the piece of Ethernet terminal equipment.*

18. For example, that the claimed “Ethernet terminal device” is configured to “draw different magnitudes of DC current flow via the at least one path” as recited in claim 1 of the ’107 Patent. In my opinion, a person of ordinary skill in the art would understand that this means that the equipment is configured or designed to draw different magnitudes of (DC) current flow.”
19. Support for these constructions can be found in the intrinsic evidence, including the claim language itself.
20. Claim 1 of the ’107 Patent, like all of the claims identified above associated with the word “to” is an apparatus claim, not a method claim.
21. Nothing in claim 1 of the ’107 Patent, or any of the other claims identified above, requires the piece of Ethernet terminal equipment to actually draw current in the context of this apparatus claim.
22. Each claim identified above recites a structural component.
23. Defendants’ proposal is also problematic as the word “to” appears in other places where it would not make sense that some action must occur. For example, in claim 1 of the ’107 Patent, “an Ethernet connector comprising first and second pairs of contacts used *to carry* Ethernet communication signals.” One of ordinary skill in the art would understand that this means that the Ethernet connector includes pairs of contacts that are configured to carry Ethernet communication signals—not that the Ethernet connector was actually carrying those signals.
24. As detailed below, I disagree with Defendants that where the infinitive “to” is used that an action must occur:

“to detect at least two different magnitudes of the current flow” (’760 Patent, claims 1, 73)



25. In my opinion, a person of ordinary skill in the art would understand that this means that the BaseT Ethernet equipment is configured or designed to detect at least two different magnitudes of the current flow.

“to detect current flow” (‘760 Patent, claim 58)

26. In my opinion, a person of ordinary skill in the art would understand that this means that the BaseT Ethernet equipment is configured or designed to detect current flow.

“to detect different magnitudes of DC current flow” (‘838 Patent, claim 1)

27. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to detect different magnitudes of DC current flow.

“to detect distinguishing information within the DC current” (‘838 Patent, claim 7)

28. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to detect distinguishing information within the DC current.

“to distinguish one end device from at least one other end device” (‘838 Patent, claim 26)

29. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to distinguish one end device from at least one other end device.

“to distinguish one network object from at least one other network object” (‘838 Patent, claim 29)

30. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to distinguish one network object from at least one other network object.

“to distinguish the piece of Ethernet terminal equipment from at least one other piece of Ethernet terminal equipment” (‘107 Patent, claim 43)

31. In my opinion, a person of ordinary skill in the art would understand that this means that the the network equipment is configured or designed to convey information about the piece of Ethernet terminal equipment.

“to distinguish the powered-off end device from at least one other end device”  
(‘107 Patent, claim 111)

32. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to distinguish the powered-off end device from at least one other end device.

“to distinguish the piece of BaseT Ethernet terminal equipment from at least one other piece of BaseT Ethernet terminal equipment” (‘760 Patent, claims 69, 112)

33. In my opinion, a person of ordinary skill in the art would understand that this means that the central BaseT Ethernet equipment is configured or designed to distinguish the piece of BaseT Ethernet terminal equipment from at least one other piece of BaseT Ethernet terminal equipment.

“to control application of at least one electrical condition” (‘760 Patent, claim 1; ‘838 Patent, claim 1)

34. In my opinion, a person of ordinary skill in the art would understand that this means that the central BaseT Ethernet equipment (‘760) or central network equipment (‘838) is configured or designed to control application of at least one electrical condition.

“to control application of the at least one DC power signal” (‘838 Patent, claim 40)

35. In my opinion, a person of ordinary skill in the art would understand that, in the context of claim 40 of the ‘838 Patent, this means that the central piece of network equipment is configured or designed to control application of the at least one DC power signal.

“the at least one magnitude of DC current flow is used by the central piece of network equipment to control application of at least one DC power signal” (‘838 Patent, claim 69)

36. In my opinion, a person of ordinary skill in the art would understand that, in the context of claim 69 of the '838 Patent, this means that the central piece of network equipment is configured or designed to control the application of the at least one DC power signal.

“to convey information about the piece of Ethernet terminal equipment” ('107 Patent, claim 1)

37. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to convey information about the piece of Ethernet terminal equipment.

“to convey information about the powered-off end device” ('107 Patent, claim 104)

38. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to convey information about the powered-off end device.

“to provide at least one DC current” ('838 Patent, claim 7)

39. In my opinion, a person of ordinary skill in the art would understand that this means that the central piece of network equipment is configured or designed to provide at least one DC current.

“to result from at least one condition applied to” ('107 Patent, claims 1, 104)

40. In my opinion, a person of ordinary skill in the art would understand that this means that the network equipment is configured or designed to draw different magnitudes of DC current flow in response at least one electrical condition applied to at least one of the contacts.

**“AT LEAST ONE [ELECTRICAL, VOLTAGE, IMPEDANCE] CONDITION”**

41. I understand that Defendants have asked the Court to construe the phrases “at least one condition” and “at least one condition applied” in the following claims:

'107 Patent, claims 1, 104, and 107;

'760 Patent, claim 1; and

'838 Patent, claims 1 and 47.

42. I understand that Defendants contend that the term “condition,” without a modifier such as voltage, is indefinite.
43. I also understand that Defendants contend that the term “applying a voltage condition” means applying a voltage. However, the phrase “applying a voltage condition” does not appear in any of these claims.
44. I disagree that the term “condition,” without a modifier such as electrical, voltage, or impedance, is indefinite. I also disagree that these terms need any construction.
45. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that these terms would have their plain and ordinary meaning. In the context of these claims, the plain and ordinary meaning of the term “condition” is an electrical condition (e.g., a voltage or an impedance condition).
46. Support for these constructions can be found in the intrinsic evidence, including the claim language itself.
47. For example, claim 1 of the ’107 Patent states that “the piece of Ethernet terminal equipment to draw different magnitudes of DC current flow via the at least one path, the different magnitudes of DC current flow to result ***from at least one condition applied to at least one of the contacts of the first and second pairs of contacts.***”
48. A person of ordinary skill in the art, reading this claim, would understand that the “condition” that would be applied to at least one of the contacts must be an electrical condition such a voltage or an impedance, since the claim requires that the Ethernet terminal equipment must be configured to draw different magnitudes of current in response to such an electrical condition.
49. Additional support can be found in the specification of the Patents-in-Suit. For example:

Although the encoded signal in the present embodiment transmits the encoded signal from the remote module 16a, it is within the scope of the invention to source current from the central module and alter the flow of current from within the remote module 16a by changing the impedance of a circuit connected across the data communication link 2A. Examples of such circuits include an RC network connected directly to the data link 2A and reflecting an impedance change across an isolation transformer. in the ’012 Patent, 8:49-57

50. Further, the dependent claims add additional support. For example, claim 22 of the '107 Patent states “wherein the at least one condition comprises a voltage condition,” thus confirming that the “condition” is an electrical condition, and one type of electrical condition is a voltage condition.
51. In other words, claim 22 demonstrates that the claimed “piece of Ethernet terminal equipment” of claim 1 is configured to “draw different magnitudes of DC current flow via the at least one path” in response to a voltage “applied to at least one of the contacts of the first and second pairs of contacts.”
52. Claim 23 of the '107 Patent specifies that the “condition” is an “impedance condition.” Thus, claim 23 shows that the claimed “piece of Ethernet terminal equipment” of claim 1 is configured to “draw different magnitudes of DC current flow via the at least one path” in response to an impedance “applied to at least one of the contacts of the first and second pairs of contacts.”
53. The other dependent claims of the '107, '760, and '838 Patents further support the same conclusion regarding the meaning of the term “condition” as meaning an electrical condition, such as a voltage or an impedance condition.

#### **“CURRENT” AND “CURRENT FLOW”**

54. I understand that the Defendants contend that the term “current” and “current flow” mean different things, and therefore the following claims referring to both “current” and “current flow” are indefinite as they have improper antecedent basis:
  - '107 Patent, claims 1, 31, 53, 70, 72, and 104;
  - '760 Patent, claims 1, 37, 58, 59, 73, 112, and 134; and
  - '838 Patent, claims 1, 2, 7, 26, 29, 55, and 69
55. I disagree that the terms “current” and “current flow” mean different things. Also, I note that Defendants have not provided separate constructions for these terms, and therefore I cannot analyze their proposed constructions. Should the Defendants provide separate constructions for these terms, I reserve the right to address those constructions at a later time.

56. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the terms “current” and “current flow” mean the same thing and have their plain and ordinary meaning, namely a flow of electric charge.
57. The term “current” is a common electrical engineering term to describe the flow of electric charge. While less commonly used, the term “current flow” describes the same thing, namely the flow of electric charge.
58. Support for these constructions can be found in the intrinsic evidence, including the claim language itself.
59. Notably, in every instance where the terms “current” and “current flow” are mentioned, it is with respect to direct current (“DC”), as opposed to alternating current (“AC”).
60. Because these terms have the same meaning to a person of ordinary skill in the art, I disagree that there is an issue of indefiniteness due to improper antecedent basis.
61. For example, claim 1 of the ’107 Patent recites “at least one path for the purpose *of drawing DC current,*” and also recites that “the piece of Ethernet terminal equipment *to draw different magnitudes of DC current flow* via the at least one path.” Where terms “current” and “current flow” are used, it is with respect to “DC” or direct current. Given that each term is preceded by DC, one of ordinary skill in the art would understand that both “current” and “current flow” are talking about direct current.
62. In every instance in the claims identified above where the terms “current” and “current flow” appear, they are being used in connection with direct current or “DC.”
63. Thus, a person of ordinary skill in the art would understand the terms “current” and “current flow” to mean the same thing in the context of these claims, namely a flow of electric charge.
64. I also note that “current” and “current flow” are not claimed structure elements of any of these claims. Instead, where the terms “current” and “current flow” are used, they are being used merely to describe how the claimed structural elements or apparatus is configured or designed to operate.
65. For example, claim 1 of the ’107 Patent claims “at least one path *for the purpose of drawing DC current.*” Claim 1 of the ’107 Patent does not require current to be flowing through the path in order to infringe claim 1. Instead, claim 1 merely requires a path that is configured to draw DC current.

66. Thus, in my opinion, a person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the terms “current” and “current flow” mean the same thing and have their plain and ordinary meaning, namely a flow of electric charge.

**“DETECTION PROTOCOL” / “PART OF A DETECTION PROTOCOL”**

67. I understand that Defendants contend that the terms “detection protocol” and “part of a detection protocol” as used in the following claims are indefinite:

- ’012 Patent, claim 35;
- ’107 Patent, claims 72 and 123;
- ’760 Patent, claim 59; and
- ’838 Patent, claim 2.

68. I understand that the Defendants contend that the terms “detection protocol,” and “part of a detection protocol,” are indefinite.

69. I disagree that the terms “detection protocol,” and “part of a detection protocol,” are indefinite. In my opinion, these terms are readily understandable by one of ordinary skill in the art and have their plain and ordinary meanings.

70. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the “detection protocol,” and “part of a detection protocol,” have their plain and ordinary meaning, namely a “detection scheme, rule, or procedure,” or a part thereof, respectively.

71. The specification supports this definition of detection protocol by providing a detection scheme, rule or procedure. Support for this can be found in Plaintiffs' 4-3 Disclosures.

72. All of the claims using this term are dependent claims which refer to either the magnitude of the current (flow) or the impedance in the path as being part of a detection protocol.

73. In plain English, detection means to detect, discover, or determine the existence of something. And protocol means a procedure, scheme, or set of rules. Thus, a detection protocol is a procedure, scheme, or set of rules for detecting, discovering, or determining the existence of something.

74. In the context of these claims, “detection protocol” means that the equipment is configured or designed so that the magnitude of the current (flow) or the impedance in

the path allow it to detect or determine some information about the equipment at the other end of the path.

**“LOOP FORMED OVER”**

75. I understand that the Defendants contend that the term “loop formed over,” means “a complete circuit that includes [at least one of the conductors of the first pair and at least one of the conductors of the second pair].”
76. The phrase “loop formed over” occurs in the following asserted claims:  
  
’760 Patent, claims 1 and 73.
77. I disagree that the term “loop formed over” means a complete circuit that includes [at least one of the conductors of the first pair and at least one of the conductors of the second pair].
78. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the phrase “loop formed over” would have its plain and ordinary meaning, which is a round trip path formed over [at least one of the conductors of the first pair of conductors and at least one of the conductors of the second pair of conductors].
79. Claim 1 of the ’760 Patent states that “the piece of BaseT Ethernet terminal equipment having at least one path to draw different magnitudes of current flow from the at least one DC supply *through a loop formed over at least one of the conductors of the first pair and at least one of the conductors of the second pair.*”
80. In my opinion, a person of ordinary skill in the art would understand this language of claim 1 of the ’760 means that the piece of BaseT Ethernet terminal equipment has a path and is configured to draw different magnitudes of current through a loop (e.g., a round trip path) formed over the recited conductors.
81. Defendants’ proposed construction is incorrect because it adds the limitation of a complete circuit that is connected.
82. Nothing in the patent specification or claims requires the further limitation of a circuit, much less a complete circuit that is connected. Rather, the claim merely requires the claimed device be configured to draw different magnitudes of current flow through a loop. The only limitation on the loop as stated in the asserted claims is that the loop is



formed over at least one of the conductors of the first pair and at least one of the conductors of the second pair when the first and second pairs are physically connected between the piece of BaseT Ethernet terminal equipment and the piece of central BaseT Ethernet equipment.

83. This is further supported by claim 71, which depends from claim 1.
84. The term loop is used in the specification. *See, e.g.*, Plaintiffs' 4-3 disclosures providing support. The specification does not redefine loop to be a complete circuit.
85. A person of ordinary skill in the art, reading the claims in light of the specification and file history would recognize that the term loop is not limited to a complete circuit as Defendants suggest.

### **“PATH COUPLED ACROSS”**

86. I understand that the Defendants contend that the phrase “path coupled across” means “an electrical connection between [first contact and second contact]” as used in the following claims:

’012 Patent, claim 31; and

’107 Patent, claims 1 and 104.

87. I disagree with Defendants’ proposed construction of the phrase “path coupled across.”
88. The word “connection” is a much more restrictive term than “coupled” as used in the claim and would add unnecessary limitations to this phrase. Neither the intrinsic or extrinsic evidence supports making this restriction.
89. For example, the McGraw Hill Electronics Dictionary (page 100, cited by Defendants) defines “coupling” as follows:

A mutual relationship between two circuits that permits energy transfer from one to the other. Coupling can be direct through a wire, resistive through a resistor, inductive through a transformer or choke, or capacitive through a capacitor.

90. In other words, a connection (such as through a wire) is a special case of the more general term coupling.
91. This is an important distinction for devices using DC current, like Power over Ethernet (“PoE”) equipment. For example, a DC voltage can be applied to the center tap of a transformer and current is coupled through the transformer to the contacts of a connector.

92. In such an example, the DC source is not directly connected to the contacts of the connector, but still electrically coupled. Defendants' proposed construction of "an electrical connection between" would improperly limit these claims to direct electrical connections, thus eliminating certain types of electrically coupled circuits, such as through a transformer.
93. Transformer coupling is disclosed in the specifications of the Patents-in-Suit. For example, transformer coupling is disclosed in at least Figures 6 and 10 of the '012 and '107 Patents and show isolation transformers being used with the receiver and transmitter circuits, respectively.

### **"BASET"**

94. I understand that the Defendants contend that the term "BaseT" means "10BASE-T, which requires communication over twisted pair cabling at 10 Mb/s," as used in the following claims:
- '012 Patent, claims 36, 56, and 60;
  - '107 Patent, claim 5;
  - '760 Patent, claims 1, 31, 37, 58, 59, 69, 72, 73, 106, 112, 134, 142, and 145; and
  - '838 Patent, claim 1.
95. I disagree with Defendants' proposed construction.
96. Defendants' proposed construction is improper because it would limit the claims to only one speed of BaseT Ethernet, namely Base-T Ethernet at 10 Mb/s (megabits per second). Nothing in the intrinsic record shows that the claims are limited to one speed of BaseT Ethernet.
97. Notably, everywhere that the term "BaseT" is used, it is used together with "Ethernet" as "BaseT Ethernet."
98. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the term "BaseT" as used each claim is actually BaseT Ethernet and has its plain and ordinary meaning, namely "twisted pair Ethernet per the IEEE 802.3 Standards (e.g. 10BaseT/IEEE 802.3i, 100BaseTX/IEEE 802.3u, and 1000BaseT/IEEE 802.3ab)."

99. Support for these constructions can be found in the intrinsic evidence, including the claim language itself.
100. None of the asserted claims are limited to 10BaseT Ethernet, which is the subject of 10BaseT/IEEE 802.3i standard and one speed of BaseT Ethernet.
101. While one claim, Claim 31 originally filed with the '012 Patent (See file history of the '012 patent, application filed 9/26/2008 at p. 40) had a limitation that identified specifically 10BaseT, no issued claim was ever limited to 10BaseT.
102. During prosecution, the “10” in front of “BaseT” was removed.
103. None of the asserted claims are limited to 10BaseT and in fact each recites BaseT Ethernet.
104. BaseT Ethernet is known and is described in at least the IEEE 802.3 Standards (e.g. 10BaseT/IEEE 802.3i, 100BaseTX/IEEE 802.3u, and 1000BaseT/IEEE 802.3ab)
105. A person of ordinary skill in the art, reading the claims in light of the specification and file history would recognize that the term BaseT Ethernet is not limited to 10BaseT which requires communication over twisted pair cabling at 10Mb/s.

#### **“POWERED OFF”**

106. I understand that the Defendants contend that the terms “powered off,” “powered off Ethernet terminal equipment,” and “powered-off end device” as used in the following claims mean that no power is applied to the claimed equipment/device.
  - ’107 Patent, claims 103, 104, 107, 111, 123, 125; and
  - ’760 patent, claims 72, 145.
107. Defendants’ proposed construction of these “powered off” terms is incorrect because it implies that the device has absolutely no power at all applied to it, which is incorrect in light of the specification and file history.
108. A person of ordinary skill in the art, reading the claims in light of the specification and file history, would understand that the terms “powered off” as used in the claims would mean “Ethernet terminal equipment without its operating power” and “end device without its operating power.”
109. This construction is proper because, as the claims and specification contemplate, the claimed equipment being configured to draw different magnitudes of current flow

without the equipment having its operating power. See, e.g. Col. 3 ll. 33-37 of both patents, and Col. 6 ll. 7-12 of both patents Col. 11 l. 16-25 of the '107 Patent and Col. 11 ll. 18-27 of the '760 Patent. Further support for this can be found in Plaintiff's P.R. 4-3 disclosure.

110. Support for these constructions can be found in the intrinsic evidence, including the claim language itself.
111. None of the asserted claims says that no power is applied to the Ethernet terminal equipment or the end device. Rather the claims refer to powered-off Ethernet terminal equipment ('107 patent, claims 103, '760 claims 72 and 145 [powered-off BaseT Ethernet Equipment]) and powered-off end device ('760 claims 104, 107, 111, 123 and 125).
112. The intrinsic record indicates that the device is powered-off when it is without its operating power. Col. 2 l. 8-13 (of each patent) states "It would also be desirable to communicate with the device without requiring the device or the asset to be connected to alternating current (AC) power." Col. 5 ll. 4-6 (of each patent) also indicates that the "patch panel would then be capable of identifying the existence and location of the network assets without power being applied to the assets." Further, Col. 12 ll. 54-56 of the '107 patent and Col. 12 ll. 57-59 of the '760 patent add "the system provides a means for permanently identifying the location of the network assets without applying power to the assets."
113. Accordingly, and in view of the specifications of each patent, Defendants' construction is not supported by the intrinsic record, and "powered off" as used in the claims would mean "Ethernet terminal equipment without its operating power" and "end device without its operating power."
114. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Executed this 17<sup>th</sup> Day of December, 2015.



LES BAXTER

# EXHIBIT 1

**Les Baxter, P.E., F-IEEE**  
154 Pinckney Road, Little Silver, NJ 07739  
les@baxter-enterprises.com  
732-212-1400

### **Work Experience**

- Bell Laboratories (August 1977 to July 2001) – Member of Technical Staff, Technical Manager, and Director in the Customer Switching Systems, Network Cable Systems, Optical Fiber Solutions, and Optical Networking business units.
- Baxter Enterprises (July 2001 to present) – providing consulting, engineering, and expert witness services -- specializing in local area networks, structured cabling systems, residential networks, and systems engineering. For more information on recent projects, see [www.baxter-enterprises.com](http://www.baxter-enterprises.com).

### **Primary Areas of Technical Expertise and Experience**

- Local Area Networks, data communication/networking, protocols (particularly IEEE 802.3/Ethernet, PoE and IEEE 1394/FireWire)
- Structured cabling (copper and fiber-optic) and physical layer networking in the enterprise, network, and residential markets
- Systems engineering (network architecture, product and system specifications and requirements)
- Optical networking
- Standards strategy and development
- Switching systems (circuit, packet, and optical)
- Prototyping and product development (hardware and firmware)
- Global technical, sales, and marketing support
- Commercializing new technology to create successful products and systems

### **Professional Activities and Affiliations**

- Named an IEEE Fellow on 1/1/2009 for “contributions to high-speed digital communication networks”
- Registered Professional Engineer in New Jersey (License No. GE 24GE03703600)
- Co-author of *Premises Cabling* (3<sup>rd</sup> edition, ISBN 1-4018-9820-0, Delmar-Thompson, 2006.)
- Author of *Residential Networks* (ISBN 1-4018-6267-5, Delmar-Thompson, 2006.)
- Have participated in numerous IEEE, EIA/TIA, and ISO/IEC standards committees. Currently chair the IEEE 1394 committee, am a member of the IEEE 802.3 working group, and participant in the TIA TR-42 committee.
- Author of more than 30 articles in technical and trade journals (several recent publications are available at [www.baxter-enterprises.com](http://www.baxter-enterprises.com).) Have made presentations at technical conferences on 5 continents.
- Inventor of 8 US patents
- Recipient of 1998 Bell Labs President’s Gold Award (awarded annually to the top 2 or 3 R&D projects at Bell Labs) for the development of the SYSTIMAX GigaSPEED<sup>®</sup> cabling system
- Session organizer/chairman for IEEE International Conf. on Telecommunications (1995 - 1998)
- Member of IEEE Standards Association, TIA, BICSI, NSPE, 1394 Trade Association, and IEEE USA Consultant’s Network.

### **Education**

- Mini-MBA in Global Business, Penn State, April 1995.
- Master of Science in Electrical Engineering, University of Delaware, June 1977.
- Bachelor of Science in Electrical Engineering, Rochester Institute of Technology, June 1975.
- Assoc. of Arts and Science in Electronic Technology, Delaware Tech., June 1972.

## **Les Baxter**

### **Publications (last 10 years)**

- [1] Les Baxter, "Book Review: Does My Work Matter? The Hidden Treasure in the Work We Do," *IEEE Communications Magazine*, June 2013.
- [2] Les Baxter, "IEEE 1394 Ideal for Long-Haul Automotive, Consumer, Industrial, Security and PC Applications," 1394 Trade Association White Paper, July 2010 (also on eetimes.com)
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### **Expert Witness Experience (last 4 years)**

- Chrimar Systems v. Aastra Technologies, Alcatel-Lucent, AMX, Grandstream Networks, and Samsung, Cases 6:13-CV-879-JDL, 6:13-CV-880-JDL, 6:13-CV-881-JDL, 6:13-CV-882-JDL, and 6:13-CV-883-JDL (E. D. Tex)
- Berk-Tek v. Belden, Case IPR2013-00057 (USPTO)
- ChriMar Systems v. Cisco, Hewlett Packard, Extreme Networks, and Avaya, Investigation No. 337-TA-817 (ITC)