PATENT ASSIGNMENT

Electronic Version v1.1 Stylesheet Version v1.1

SUBMISSION TYPE: NEW ASSIGNMENT

NATURE OF CONVEYANCE: SECURITY AGREEMENT

CONVEYING PARTY DATA

Name	Execution Date
Wells Fargo Capital Finance, LLC, as Agent	05/10/2011

RECEIVING PARTY DATA

Name:	ollgrade Communications, Inc.				
Street Address:	3120 Unionville Rd., Suite 400				
City:	Cranberry Township				
State/Country:	PENNSYLVANIA				
Postal Code:	16066				

PROPERTY NUMBERS Total: 51

Property Type	Number
Patent Number:	6574311
Patent Number:	7235979
Patent Number:	7508218
Patent Number:	7508219
Patent Number:	7602885
Patent Number:	6985444
Patent Number:	7042983
Patent Number:	6487276
Patent Number:	7433323
Patent Number:	5881130
Patent Number:	6389109
Patent Number:	7356127
Patent Number:	D622583
Patent Number:	5586181
Patent Number:	5457743
	DATENT

PATENT "REEL: 026258 FRAME: 0402

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Patent Number:	5706333
Patent Number:	6531879
Patent Number:	5473666
Patent Number:	5640433
Patent Number:	5652712
Patent Number:	5699402
Patent Number:	5870451
Patent Number:	6026145
Patent Number:	7386039
Patent Number:	6970429
Patent Number:	6385297
Patent Number:	5552881
Patent Number:	5644617
Patent Number:	7653180
Patent Number:	7515691
Patent Number:	7529348
Patent Number:	6590962
Patent Number:	7012991
Patent Number:	7436935
Patent Number:	6320939
Patent Number:	6826258
Patent Number:	6894504
Patent Number:	7071703
Patent Number:	6522723
Patent Number:	6285744
Patent Number:	6453015
Patent Number:	6650732
Patent Number:	7529347
Application Number:	12441972
Application Number:	61405846
Application Number:	61405820
Application Number:	29368446
Application Number:	12307824
Application Number:	12341300
Application Number:	12503417
	PATENT

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12668354

CORRESPONDENCE DATA

Fax Number: (949)720-0182

Correspondence will be sent via US Mail when the fax attempt is unsuccessful.

Phone: (949) 760-1121

Email: patent@buchalter.com

Correspondent Name: Sandra P. Thompson

Address Line 1: 18400 Von Karman Avenue, Suite 800

Address Line 4: Irvine, CALIFORNIA 92612

ATTORNEY DOCKET NUMBER: W3344-0030

NAME OF SUBMITTER: Sandra P. Thompson, PhD

Total Attachments: 13

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PATENT SECURITY AGREEMENT

This PATENT SECURITY AGREEMENT (this "Patent Security Agreement") is made this 10th day of May, 2011, by and among the Grantors listed on the signature pages hereof (collectively, jointly and severally, "Grantors" and each individually "Grantor"), and WELLS FARGO CAPITAL FINANCE, LLC, a Delaware limited liability company ("WFCF"), in its capacity as agent for the Lender Group and the Bank Product Providers (in such capacity, together with its successors and assigns permitted in such capacity, "Agent").

WITNESSETH:

WHEREAS, pursuant to that certain Credit Agreement dated as of May 10, 2011 (as amended, restated, supplemented, or otherwise modified from time to time, including all schedules thereto, the "Credit Agreement") by and among Talon Holdings, Inc., a Delaware corporation, as parent ("Parent"), Tollgrade Communications, Inc., a Pennsylvania corporation ("Borrower"), the lenders party thereto as "Lenders" (such Lenders, together with their respective successors and assigns, are referred to hereinafter each individually, as a "Lender" and, collectively, as the "Lenders"), and Agent, the Lender Group has agreed to make certain financial accommodations available to Borrower from time to time pursuant to the terms and conditions thereof; and

WHEREAS, the members of Lender Group are willing to make the financial accommodations to Borrower as provided for in the Credit Agreement, but only upon the condition, among others, that the Grantors shall have executed and delivered to Agent, for the benefit of the Lender Group and the Bank Product Providers, that certain Security Agreement, dated as of May 10, 2011 (including all annexes, exhibits or schedules thereto, as from time to time amended, restated, supplemented or otherwise modified, the "Security Agreement"); and

WHEREAS, pursuant to the Security Agreement, Grantors are required to execute and deliver to Agent, for the benefit of the Lender Group and the Bank Product Providers, this Patent Security Agreement;

NOW, THEREFORE, in consideration of the premises and mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, each Grantor hereby agrees as follows:

- 1. <u>DEFINED TERMS</u>. All capitalized terms used but not otherwise defined herein have the meanings given to them in the Security Agreement or, if not defined therein, in the Credit Agreement.
- 2. GRANT OF SECURITY INTEREST IN PATENT COLLATERAL. Each Grantor hereby unconditionally grants, collaterally assigns, and pledges to Agent, for the benefit each member of the Lender Group and each of the Bank Product Providers, to secure the Secured Obligations, a continuing security interest (referred to in this Patent Security Agreement as the "Security Interest") in all of such Grantor's right, title and interest in and to the following, whether now owned or hereafter acquired or arising, to the extent comprised in the Collateral (as defined in the Security Agreement) (collectively, the "Patent Collateral"):
- (a) all of its Patents and Patent Intellectual Property Licenses to which it is a party including those Patents referred to on Schedule I;
- (b) all divisionals, continuations, continuations-in-part, reissues, reexaminations, or extensions of the foregoing; and
- (c) all products and proceeds of the foregoing, including any claim by such Grantor against third parties for past, present or future infringement of any Patent (including any Patent exclusively

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licensed under any Intellectual Property License, including the right to receive damages, or right to receive license fees, royalties, and other compensation under any Patent Intellectual Property License.

- 3. <u>SECURITY FOR SECURED OBLIGATIONS</u>. This Patent Security Agreement and the Security Interest created hereby secures the payment and performance of the Secured Obligations, whether now existing or arising hereafter. Without limiting the generality of the foregoing, this Patent Security Agreement secures the payment of all amounts which constitute part of the Secured Obligations and would be owed by Grantors, or any of them, to Agent, the Lender Group, the Bank Product Providers or any of them, whether or not they are unenforceable or not allowable due to the existence of an Insolvency Proceeding involving any Grantor.
- 4. SECURITY AGREEMENT. The Security Interest granted pursuant to this Patent Security Agreement is granted in conjunction with the security interests granted to Agent, for the benefit of the Lender Group and the Bank Product Providers, pursuant to the Security Agreement. Each Grantor hereby acknowledges and affirms that the rights and remedies of Agent with respect to the Security Interest in the Patent Collateral made and granted hereby are more fully set forth in the Security Agreement, the terms and provisions of which are incorporated by reference herein as if fully set forth herein. To the extent there is any inconsistency between this Patent Security Agreement and the Security Agreement, the Security Agreement shall control.
- 5. AUTHORIZATION TO SUPPLEMENT. If any Grantor shall obtain rights to any new patent application or issued patent or become entitled to the benefit of any patent application or patent for any divisional, continuation, continuation-in-part, reissue, or reexamination of any existing patent or patent application, the provisions of this Patent Security Agreement shall automatically apply thereto. Grantors shall give prompt notice in writing to Agent with respect to any such new patent rights in accordance with the terms of the Security Agreement. Without limiting Grantors' obligations under this Section, Grantors hereby authorize Agent unilaterally to modify this Patent Security Agreement by amending Schedule I to include any such new patent rights of each Grantor. Notwithstanding the foregoing, no failure to so modify this Patent Security Agreement or amend Schedule I shall in any way affect, invalidate or detract from Agent's continuing security interest in all Collateral, whether or not listed on Schedule I.
- 6. <u>COUNTERPARTS</u>. This Patent Security Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Patent Security Agreement. Delivery of an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission shall be equally as effective as delivery of an original executed counterpart of this Patent Security Agreement. Any party delivering an executed counterpart of this Patent Security Agreement by telefacsimile or other electronic method of transmission also shall deliver an original executed counterpart of this Patent Security Agreement but the failure to deliver an original executed counterpart shall not affect the validity, enforceability, and binding effect of this Patent Security Agreement.
- CONSTRUCTION. This Patent Security Agreement is a Loan Document. Unless the context of this Patent Security Agreement clearly requires otherwise, references to the plural include the singular, references to the singular include the plural, the terms "includes" and "including" are not limiting, and the term "or" has, except where otherwise indicated, the inclusive meaning represented by the phrase "and/or". The words "hereof", "herein", "hereby", "hereunder", and similar terms in this Patent Security Agreement refer to this Patent Security Agreement as a whole and not to any particular provision of this Patent Security Agreement. Section, subsection, clause, schedule, and exhibit references herein are to this Patent Security Agreement unless otherwise specified. Any reference in this Patent Security Agreement to any agreement, instrument, or document shall include all alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements, thereto and thereof, as applicable (subject to any restrictions on such alterations, amendments, changes, extensions, modifications, renewals, replacements, substitutions, joinders, and supplements set forth herein). The words "asset" and

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"property" shall be construed to have the same meaning and effect and to refer to any and all tangible and intangible assets and properties, including cash, securities, accounts, and contract rights. Any reference herein to the satisfaction, repayment, or payment in full of the Secured Obligations shall mean the repayment in full in cash or immediately available funds (or, (a) in the case of contingent reimbursement obligations with respect to Letters of Credit, providing Letter of Credit Collateralization, and (b) in the case of obligations with respect to Bank Products (other than Hedge Obligations), providing Bank Product Collateralization) of all of the Secured Obligations (including the payment of any termination amount then applicable (or which would or could become applicable as a result of the repayment of the other Secured Obligations) under Hedge Agreements provided by Hedge Providers) other than (i) unasserted contingent indemnification Secured Obligations, (ii) any Bank Product Obligations (other than Hedge Obligations) that, at such time, are allowed by the applicable Bank Product Provider to remain outstanding without being required to be repaid or cash collateralized, and (iii) any Hedge Obligations that, at such time, are allowed by the applicable Hedge Provider to remain outstanding without being required to be repaid. Any reference herein to any Person shall be construed to include such Person's successors and permitted assigns. Any requirement of a writing contained herein shall be satisfied by the transmission of a Record.

- 8. THE VALIDITY OF THIS PATENT SECURITY AGREEMENT, THE CONSTRUCTION, INTERPRETATION, AND ENFORCEMENT HEREOF, AND THE RIGHTS OF THE PARTIES HERETO WITH RESPECT TO ALL MATTERS ARISING HEREUNDER OR RELATED HERETO SHALL BE DETERMINED UNDER, GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF CALIFORNIA.
- 9. THE PARTIES AGREE THAT TO THE FULLEST EXTENT OF APPLICABLE LAW ALL ACTIONS OR PROCEEDINGS ARISING IN CONNECTION WITH THIS PATENT SECURITY AGREEMENT SHALL BE TRIED AND LITIGATED ONLY IN THE STATE AND, TO THE EXTENT PERMITTED BY APPLICABLE LAW, FEDERAL COURTS LOCATED IN THE COUNTY OF LOS ANGELES, STATE OF CALIFORNIA; PROVIDED, HOWEVER, THAT ANY SUIT SEEKING ENFORCEMENT AGAINST ANY COLLATERAL OR OTHER PROPERTY MAY BE BROUGHT, AT AGENT'S OPTION, IN THE COURTS OF ANY JURISDICTION WHERE AGENT ELECTS TO BRING SUCH ACTION OR WHERE SUCH COLLATERAL OR OTHER PROPERTY MAY BE FOUND. AGENT AND EACH GRANTOR WAIVE, TO THE EXTENT PERMITTED UNDER APPLICABLE LAW, ANY RIGHT EACH MAY HAVE TO ASSERT THE DOCTRINE OF FORUM NON CONVENIENS OR TO OBJECT TO VENUE TO THE EXTENT ANY PROCEEDING IS BROUGHT IN ACCORDANCE WITH THIS SECTION 9.
- 10. TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, AGENT AND EACH GRANTOR HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS PATENT SECURITY AGREEMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED HEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. AGENT AND EACH GRANTOR REPRESENT THAT EACH HAS REVIEWED THIS WAIVER AND EACH KNOWINGLY AND VOLUNTARILY WAIVES ITS JURY TRIAL RIGHTS FOLLOWING CONSULTATION WITH LEGAL COUNSEL. IN THE EVENT OF LITIGATION, A COPY OF THIS PATENT SECURITY AGREEMENT MAY BE FILED AS A WRITTEN CONSENT TO A TRIAL BY THE COURT.
- 11. EACH OF GRANTOR HEREBY IRREVOCABLY AND UNCONDITIONALLY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE COUNTY OF LOS ANGELES AND THE STATE OF CALIFORNIA, IN ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO ANY LOAN DOCUMENTS, OR FOR RECOGNITION OR ENFORCEMENT OF ANY JUDGMENT. EACH OF THE PARTIES HERETO AGREES THAT A FINAL, NON-APPEALABLE JUDGMENT IN ANY SUCH ACTION

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OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN OTHER JURISDICTIONS BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW. NOTHING IN THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT SHALL AFFECT ANY RIGHT THAT AGENT MAY OTHERWISE HAVE TO BRING ANY ACTION OR PROCEEDING RELATING TO THIS AGREEMENT OR ANY OTHER LOAN DOCUMENT AGAINST ANY LOAN PARTY OR ITS PROPERTIES IN THE COURTS OF ANY JURISDICTION.

[signature page follows]

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IN WITNESS WHEREOF, the parties hereto have caused this Patent Security Agreement to be executed and delivered as of the day and year first above written.

GRANTORS:

TOLLGRADE COMMUNICATIONS, INC., a Delaware corporation

Name: Michael D. Bornak Title: Treasurer

ACCEPTED AND ACKNOWLEDGED BY:

AGENT:

WELLS FARGO-GAPITAL FINANCE, LLC, a Delaware lippied liability company

By:

Name: Shephen Carli Title: Managing Director

Patent Security Agreement

SCHEDULE I to PATENT SECURITY AGREEMENT

Patents

Issued Patents

Apparatus and Method for Detecting a Bridge Tap and/or an End-of-Line of a Conventional

Telephone Line Using Delay-Line Time Domain Reflectometry

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	001849	2/23/01	09/792,726	6/3/03	6,574,311	Tollgrade Communications, Inc.
U.K.	062598	2/14/02	02723156.2	8/23/06	1 402 709	Tollgrade Communications, Inc.

Apparatus and Method for Measuring Loop Insertion Loss Single-Endedly

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	053018	1/18/06	11/334,239	6/26/07	7,235,979	Tollgrade Communications, Inc.
U.S.	071921	5/23/07	11/752,664	3/24/09	7,508,218	Tollgrade Communications, Inc.
U.S.	071923	5/24/07	11/752,963	3/24/09	7,508,219	Tollgrade Communications, Inc.

Automatic Provisioning of a Telephone Line System

Jurisdiction	Reference	Filed	Camal #		Patent #	Owner
U.S.	074307	12/29/05	11/322,105	10/13/09	7,602,885	Tollgrade
						Communications,
						Inc.

Binning of Results from Loop Qualification Tests

Jur	sdiction	Reference	Filed		Issued	Patent #	Owner
U.S		074457	10/19/00	09/692,169	1/10/06	6,985,444	Tollgrade
							Communications,
							Inc.

Method and Apparatus for Bridged Tap Impact Analysis

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	074372	7/30/03	10/399,641	5/9/06	7,042,983	Tollgrade
			i'			Communications,
						Inc.

Detecting Faults in Subscriber Telephone Lines

Jurisdiction	Reference	Filed	Serial #	issued	Patent #	Owner
U.S.	073196	9/30/99	09/410,237	11/26/02	6,487,276	Tollgrade
						Communications,
						Inc.

Remote Testing of High Speed Data and Voice Communication Networks

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	032303	4/30/04	10/479,431	10/7/08	7,433,323	Tollgrade
						Communications,

Schedule 1

						Inc.		
Fast and Nois	e-Insensitive L	oad Status L	Detection	*****************	~- 			
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	080198	9/15/97	08/929,842	3/9/99	5,881,130	Tollgrade Communications, Inc.		
	ons Affecting L							
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	073297	9/30/99	09/410,222	5/14/02	6,389,109	Tollgrade Communications, Inc.		
Belgium	073319	11/2/99	99 964 952.8	8/30/06	1 135 916	Tollgrade Communications, Inc.*		
Germany	073321	11/2/99	99 964	8/30/06	69 933	Tollgrade		
			952.8		045.9	Communications, Inc.*		
U.K.	073327	11/2/99	9 964 952.8	8/30/06	1 135 916	Tollgrade Communications, Inc.*		
	l Measuremen	t Device						
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	045306	5/11/05	10/509,963	4/8/08	7,356,127	Tollgrade Communications, Inc.		
Line Clamp								
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	081224	4/24/08	29/317,219	8/31/10	D622,583	Tollgrade Communications, Inc.		
Metallic Chan	nel Unit Netwo	ork						
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	991845	11/9/94	08/336,315	12/17/96	5,586,181	Tollgrade Communications, Inc.		
U.S.	991847	3/22/93	08/035,090	10/10/95	5,457,743	Tollgrade Communications, Inc.		
Method and A	pparatus for A	nalyzing Cel	llular Telephone	e Network				
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	080195	2/24/95	08/393,764	1/6/98	5,706,333	Tollgrade Communications, Inc.		
Method and A	pparatus for D	elay-Line Ti	ime Domain Rej	lectometry				
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner		
U.S.	010860	6/18/01	09/868,482	3/11/03	6,531,879	Tollgrade Communications, Inc.		
Method and Apparatus for Digitally Controlling Gain in a Talking Path								
Method and A	pparatus for D	igitally Con	trolling Gain in	a tuiking r	CALIL			
Method and A Jurisdiction	pparatus for L Reference	Filed Con	Serial #	Issued	Patent #	Owner		

Schedule 1

						Inc.
U.S.	060765	12/4/95	08/566,898	6/17/97	5,640,433	Tollgrade
						Communications,
						Inc.
U.S.	060766	12/4/95	08/567,140	7/29/97	5,652,712	Tollgrade
-						Communications,
						Inc.

Method and Apparatus for Fault Segmentation in a Telephone Network

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	073388	9/26/94	08/311,802	12/16/97	5,699,402	Tollgrade Communications, Inc.
U.S.	073391	11/6/97	08/965,360	2/9/99	5,870,451	Tollgrade Communications, Inc.
U.S.	073392	12/14/98	09/211,338	2/15/00	6,026,145	Tollgrade Communications, Inc.

Method and Apparatus for Identifying Faults in a Broadband Network

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	073289	9/26/03	10/672,821	6/10/2008	7,386,039	Tollgrade
						Communications,
						Inc.

Method and Apparatus for Measuring Internet Router Traffic

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Junsaichon	Keterence	rnea	Senai#	issued	Patent #	Owner
U.S.	074373	6/1/01	09/872,958	11/29/05	6.970.429	Tollgrade
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						Communications,
						Inc.

Method and Apparatus for Qualifying Loops for Data Services

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	073706	4/2/99	09/285,954	5/7/02	6,385,297	Tollgrade Communications, Inc.
U.K.	073715	10/25/99	99 971 618.6	3/23/05	1 125 373	Tollgrade Communications, Inc.*
Belgium	073716	10/25/99	99 971 618.6	3/23/05	1 125 373	Tollgrade Communications, Inc.*
Germany	073720	10/25/99	99 971 618.6	3/22/05	69 924 401.3	Tollgrade Communications, Inc.*

Method and Apparatus for Scanning a Fiber Optic Network

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	080208	3/17/94	08/210,315	9/3/96	5,552,881	Tollgrade
						Communications,
			2			Inc.

Method and Apparatus for Testing Cables

Jurisdiction	Reference	Filed	Serial #	Issued	the same and the s	Owner
U.S.	080199	1/12/95	09/371,734	07/01/97	5,644,617	Tollgrade
						Communications,

						Inc.
Method for As	ssessing DSL (Capability of	Telephone Line	S		
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	074489	10/1/04	10/956,170	1/26/10	7,653,180	Tollgrade Communications, Inc.
Method for Te	esting DSL Cap	pability of Te	lephone Lines			·
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	080163	10/1/04	10/956,816	4/7/09	7,515,691	Tollgrade

Method of Performing Insertion Loss Estimation

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.K.	073882	7/19/00	0017732.9	6/16/04	2 365 253	Tollgrade Communications, Inc.
U.S.	073884	12/22/03	10/332,777	5/5/09	7,529,348	Tollgrade Communications, Inc.

Method of Performing Non-Interactive Resistive Fault Location

Jurisdiction		Filed	Serial #	Issued	Patent #	Owner
U.S.	080194	6/21/00	09/598,595	7/8/03	6,590,962	Tollgrade
						Communications,
						Inc.

Qualifying Telephone Lines for Data Transmission

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	080126	12/20/01	10/019,589	3/14/06	7,012,991	Tollgrade Communications, Inc.
U.S.	080144	12/9/04	11/007,970	10/14/08	7,436,935	Tollgrade Communications, Inc.
Belgium	082967	6/23/00	00 940 651.3	11/5/08	1 188 251	Tollgrade Communications, Inc.
Germany	082968	6/23/00	00 940 651.3	11/5/08	600 40 735.7	Tollgrade Communications, Inc.

Remote Telephony Testing Device

Jurisdiction		Filed	Serial #	Issued	Patent #	Owner
U.S.	981301	9/9/98	09/142,528	11/20/01	6,320,939	Tollgrade
						Communications,
						Inc.

System and Method for Pre-Qualification of Telephone Lines for DSL Service Using an Average Loop Loss

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	073328	6/20/02	10/176,014	11/30/04	6,826,258	Tollgrade

Communications,

Inc.

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***************************************				Communications,
	!			Inc.

Technique for Estimation of a Subscriber Line Insertion Loss

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	074477	11/26/02	10/220,716	5/17/05	6,894,504	Tollgrade Communications,
						Inc.
U.S.	074478	12/6/04	11/005,055	7/4/06	7,071,703	Tollgrade Communications,
						Inc.

Telephone Line Test Unit and Method

Jurisdiction	Reference	Filed	Serial #	Issued	ratent #	Owner
U.S.	001821	2/8/01	09/701,721	2/18/03	6,522,723	Tollgrade
						Communications,
						Inc.

Telephony Test System with Adjustable Output Impedance

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	991401	12/22/99	09/402,693	9/4/01	6,285,744	Tollgrade
						Communications,
						Inc.

Telephony Testing System

Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	000462	6/5/00	09/508,622	9/17/02	6,453,015	Tollgrade Communications, Inc.
U.S.	020240	3/28/02	10/109,439	11/18/03	6,650,732	Tollgrade Communications, Inc.

Test System for Assessing DSL Capability of Telephone Lines

10000			07 3 010 0110100 22			
Jurisdiction	Reference	Filed	Serial #	Issued	Patent #	Owner
U.S.	074479	10/1/04	10/956,605	5/5/09	7,529,347	Tollgrade
					»	Inc.

Patent Applications

Automatic Provisioning of a Remote Test Head of a Combined IP/Telephony Network

	Reference	Filed	Serial #	Owner
U.S.	090209	9/19/07	12/441,972	Tollgrade
				Communications,
				Inc.

In Home Communications Wiring Noise Level Monitor and Alarm Indicator

Jurisdiction	Reference	Filed	Serial #	Owner
U.S.	103194	10/22/10	61/405,846	Tollgrade
		į		Communications,
				Inc.

Integrated Ethernet Over Coaxial Cable, STB, and Physical Layer Test and Monitoring

Jurisdiction	Reference	Filed	ರ್ಷವಾಚಿ	Owner
U.S.	103091	9/22/10	61/405,820	Tollgrade
				Communications,
				Inc.

Line Clamp

Jurisdiction	Reference	Filed	Serial #	Owner
U.S.	102557	8/24/10	29/368,446	Tollgrade
				Communications,
				Inc.

Method and Apparatus for Fault Segmentation in a Telephone Network

Jurisdiction	Reference	Filed	Serial #	
EPO	073393	9/22/95	05 075 159.3	Tollgrade
				Communications,
				Inc.*

Method and Apparatus for Identifying Faults in a Broadband Network

Inviediction	Deference		0004-0000-0000-0000-0000-0000-0000-0000-0000	Ouman
Junguicum	INCICIONICC	11100		OMREI
EPO	073293	9/25/04	04 789 008.2	Tollgrade
				Communications,
				Inc.

Method and Apparatus for Remotely Testing a Digital Subscriber Line Access Multiplexer

Jurisdiction	Reference	Filed	Serial #	Owner
U.K.	084118	7/12/07	0900610.7	Tollgrade Communications, Inc.
Germany	084121	7/12/07	11 2007 001 656.6	Tollgrade Communications, Inc.
U.S.	084122	7/12/07	12/307,824	Tollgrade Communications, Inc.

Method and Apparatus for Assessing DSL Capability of Telephone Lines

Jurisdiction	Reference	Filed	Serial #	Owner
EPO	074492	9/30/05	05 804 036.1	Tollgrade
				Communications,
				Inc.
EPO	103025	9/30/05	10 075 662.6	Tollgrade
				Communications,
				Inc.

Method for Testing DSL Capability of Telephone Lines

Jurisdiction	Reference	Filed	Serial #	Owner
EPO	080167	9/29/05	05 799 941.9	Tollgrade
				Communications,
				Inc.

Power Distribution Monitoring System

Schedule 1

BN 8975598v2

Jurisdiction	Kererence	Filed	Serial #	Owner
U.S.	083952	12/22/08	12/341,300	Tollgrade
				Communications,
				Inc.

Power Line Takeoff Clamp Assembly

Jurisdiction	Reference	Filed	Serial #	Owner
U.S.	090917	7/15/09	12/503,417	Tollgrade
				Communications,
				Inc.

System and Method for Making Far End Measurements from DSL Diagnostics

Jurisdiction	Reference	Filed	Serial #	Owner
Germany	100070	7/17/08	11 2008 001 831.6	Tollgrade Communications, Inc.
U.K.	100072	7/17/08	1000555.1	Tollgrade Communications, Inc.
U.S.	100074	7/17/08	12/668,354	Tollgrade Communications, Inc.

System and Method for Pre-Qualification of Telephone Lines for DSL Service Using an Average Loop Loss

Jurisdiction	Reference	Filed	Serial #	Owner
EPO	073332	6/12/03	03 741 960.3	Tollgrade
				Communications,
				Inc.

^{*} The current record owners of these items are Teradyne, Inc. and Teradyne Central, Inc. Title will be updated to Tollgrade Communications, Inc. within ninety (90) days of Closing.

Schedule 1

RECORDED: 05/11/2011