502859523 06/19/2014

#### PATENT ASSIGNMENT COVER SHEET

Electronic Version v1.1 Stylesheet Version v1.2 EPAS ID: PAT2906121

SUBMISSION TYPE:	NEW ASSIGNMENT
NATURE OF CONVEYANCE:	SECURITY INTEREST

#### **CONVEYING PARTY DATA**

Name	Execution Date
TANTIVY COMMUNICATIONS, INC.	07/22/2003

#### **RECEIVING PARTY DATA**

Name:	IPR HOLDINGS DELAWARE, INC.
Street Address:	781 THIRD AVENUE
City:	KING OF PRUSSIA
State/Country:	PENNSYLVANIA
Postal Code:	19406

#### **PROPERTY NUMBERS Total: 1**

Property Type	Number
Application Number:	14183181

#### **CORRESPONDENCE DATA**

**Fax Number:** (503)439-6073

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

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

**Phone:** 503-439-8778

Email: lindsay\_nied@bstz.com
Correspondent Name: VANESSA L. YAZICIGIL
Address Line 1: VANESSA L. YAZICIGIL

Address Line 4: SUNNYVALE, CALIFORNIA 94085-4040

ATTORNEY DOCKET NUMBER:	42P50313C7
NAME OF SUBMITTER:	VANESSA L. YAZICIGIL
SIGNATURE:	/Vanessa L. Yazicigil, #69,099/
DATE SIGNED:	06/19/2014

#### **Total Attachments: 28**

source=42P50313C7 Assignment 6 efiled 6-19-14#page1.tif source=42P50313C7 Assignment 6 efiled 6-19-14#page2.tif source=42P50313C7 Assignment 6 efiled 6-19-14#page3.tif

source=42P50313C7 Assignment 6 efiled 6-19-14#page4.tif source=42P50313C7 Assignment 6 efiled 6-19-14#page5.tif

source=42P50313C7 Assignment 6 efiled 6-19-14#page6.tif

source=42P50313C7 Assignment 6 efiled 6-19-14#page7.tif

502859523 REEL: 033215 FRAME: 0523

source=42P50313C7 Assignment 6 efiled 6-19-14#page8.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page9.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page10.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page11.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page12.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page13.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page14.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page15.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page16.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page17.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page18.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page19.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page20.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page21.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page22.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page23.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page24.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page25.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page26.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page27.tif
source=42P50313C7 Assignment 6 efiled 6-19-14#page28.tif

#### SCHEDULE A

#### UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Floating IP Address for Roaming Internet	09/328,663	6/9/99
Connected Subscriber Units		
Fast Acquisition of Traffic Channels for a Highly	09/730,376	12/5/00
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
System and Method for Maintaining Wireless	09/997,621	11/29/01
Channels Over a Reverse Link of CDMA Wireless		
Communication System		
System and Method for Maintaining Timing of	09/997,732	11/29/01
Synchronization Messages Over a Reverse Link of		
CDMA Wireless Communication System		
System and Method for Controlling Signal Strength	09/997,733	11/29/01
Over a Reverse Link of CDMA Wireless		
Communication System		
Fast Acquisition of Traffic Channels for a Highly	10/179,121	6/24/02
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
Maintenance of Channel Usage in a Wireless	09/288,229	4/8/99
Communication System (Amended)		
System and Method for Interleaving Compressed	09/847,859	5/2/01
Audio/Video (A/V) Data Frames		
Optimal Load-Based Wireless Session Context	09/626,784	7/27/00
Transfer		
Power Control Protocol for Highly Variable Data	09/158,421	9/21/98
Rate Reverse Link of a Wireless Communication		
System		
Method and Apparatus for a Spectrally Compliant	10/409,031	4/7/03
Cellular Communication System		
Method and Apparatus Providing an Adaptive	09/157,736	9/21/98
Antenna for Use in Same Frequency Networks		
Queuing Far/Far Service Requests in Wireless	09/773,255	1/31/01
Network		
Forward Error Correction on Multiplexed CDMA	09/263,358	3/5/99
Channels Enabling High Performance Coding		
Forward Error Correction Scheme for High Rate	09/301,484	4/28/99
Data Exchange in a Wireless System		
Method for Using a Non-Orthogonal Pilot Signal	09/772,200	1/29/01
with Data Channel Interference Cancellation		
Subscriber-Controlled Registration Technique in a	10/435,927	5/12/03
CDMA System		11/20/20
Variable Rate Coding for Forward Link	09/447,022	11/22/99

PHLEGAL: #1449365 v1 (V2C5011.DOC)

#### SCHEDULE A

## UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Time-Slotted Data Packets with a Preamble	09/845,240	4/30/01
Method and Apparatus for Adapting Antenna Array Using Received Predetermined Signal	10,282,928	10/28/02
Method and System for Economical Beam Forming in a Radio Communication System	09/791,503	2/23/01
Dual Mode Unit for Short Range, High Rate and Long Range, Lower Rate Data Communications	10/341,528	1/13/03
Dual Mode Unit for Short Range, High Rate and Long Range, Lower Rate Data Communications	10/358,082	2/3/03
Two-Tier Hi-Speed Wireless Communication Link	09/384,072	8/26/99
Minimal Maintenance Link to Support Synchronization	09/778,474	2/7/01
Method for Searching Pilot Signals to Synchronize a CDMA Receiver with an Associated Transmitter	60/184,363	2/23/00
Method for Searching Pilot Signals to Synchronize a CDMA Receiver with an Associated Transmitter	09/789,476	2/20/01
Reverse Link Pilot Integrated with Block Codes	09/728,575	11/30/00
Reverse Link Correlation Filter in Wireless Communication Systems	60/184,364	2/23/00
Reverse Link Correlation Filter in Wireless Communication Systems	09/738,934	12/15/00
Access Channel Structure for Wireless Communication System	09/766,875	1/19/01
Adaptive Compression in an Edge Router	09/774,545	1/31/01
Reverse Link Initial Power Setting Using Effective Radiated Power Message to Compute Path Loss	09/792,870	2/23/01
Reverse Link Initial Power Setting Using Effective Radiated Power Message to Compute Path Loss	10/401,115	3/26/03
Method and Apparatus for Simple PPP Handoff for Mobile Users	09/771,929	1/29/01
Grade of Service and Fairness Policy for Bandwidth Reservation System	09/778,478	2/7/01
Staggering Forward and Reverse Channel Allocation Timing	09/691,874	10/19/00
Method and Apparatus for Wireless Router Multicast	09/630,024	7/31/00
Wireless Channel Allocation in a Base Station Processor	09/565,095	5/5/00
Receiver for Time Division Multiplex System Without Explicit Time Slot Assignment	10/266,079	10/7/02

## SCHEDULE A

# UNITED STATES PATENT APPLICATIONS

Title	Application No.	Application Date
Automatic Reverse Channel Assignment in a Two-	09/574,622	5/19/00
Way TDM Communication System		
Firewall Protection for Wireless Users	09/847,865	5/2/01
Maximizing Data Rate by Adjusting Codes and	09/773,253	1/31/01
Code Rates in CDMA System		
Wireless Communication System Having Mobility-	09/845,241	4/30/01
Based Content Delivery		
Electronic Phase Shifter with Enhanced Phase Shift	09/774,534	1/31/01
Performance		2.21,01
Method and Apparatus for Frequency Selective	10/234,036	8/30/02
Beam Forming		5.00.02
Adaptive Antenna for Use in Wireless	09/847,065	5/1/01
Communication System		5, 1, 01
Achieving PPP Mobility Via the Mobile IP	09/773,364	1/31/01
Infrastructure	·	1,01,01
Proxy Mobile Node Capability for Mobile IP	09/826,060	4/4/01
Method for Allowing Multi-User Orthogonal and	09/898,514	7/3/01
Non-Orthogonal Interoperability of Code Channels	,	775701
System and Method to Preform Directional Re-Scan	09/776,396	2/2/01
of an Adaptive Antenna	1	2/2/01
Adaptive Antenna for Use in Wireless	09/859,001	5/16/01
Communication Systems	,	3/10/01
Adaptive Antenna for Use in Wireless	10/441,977	5/20/03
Communication Systems		3/20/03
Dynamic Internet Content Filtering by Means of	09/820,204	3/28/01
Measured Throughput to the User	,_,,_,,	3/ <b>2</b> 0/(/1
Improving Resources Utilization Efficiency During	09/802,128	3/8/01
Hand-Off in Mobile Communication Systems	, , , , , , , , , , , , , , , , , , , ,	5/6/01
Folding Directional Antenna	10/288,256	11/4/02
Efficient Handoffs Using LTCP in Cellular Packet	09/823,288	8/28/00
Networks		0/20/00
Link-Aware Transmission Control Protocol	09/777,557	2/5/01
Application Specific Traffic Optimization in a	09/777,555	2/5/01
Wireless Link	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2/5/01
Alternate Channel for Carrying Selected Message	09/775,304	2/1/01
Types	77110,201	2/1/01
Antenna for Array Applications	10,146,501	5/14/02
Method of Detection of Signals Using an Adaptive	09/952,198	9/13/01
Antenna in a Peer-to-Peer Network	<i>~~~</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	2/13/01
Antenna Control System and Method	09/999,172	11/30/01
	02.22,114	11/30/01

#### SCHEDULE A

#### **UNITED STATES PATENT APPLICATIONS**

<u>Title</u>	Application No.	Application Date
Directional Antenna	10,282,955	10/28/02
Narrowband Gain Control of Receiver with Digital	09,847,056	5/1/01
Post-Filtering		
Method and Apparatus for Detecting Rapid Changes	09/772,176	1/29/01
in Signaling Path Environment		
Wireless Subscriber Network Registration System	09/841,695	4/24/01
for Configurable Services		
Dynamic Bandwidth Allocation for Multiple Access	09/773,252	1/31/01
Communications Using Session Queues		
Maintenance Link Using Active/Standby Request	09/775,305	2/1/01
Channels		
Dual Split Proxy Gateway for Improving	09/850,531	5/7/01
Throughout Performance Over a Wireless Interface		
Qualifying Available Reverse Link Coding Rates	09/792,637	2/23/01
from Access Channel Power Setting		
High Gain Planar Scanned Array	09/845,133	4/30/01
Fast Switching of Forward Link in Wireless System	09/847,860	5/02/01
Method and Apparatus for Improving Utilization	09/876,843	6/6/01
Efficiency of Wireless Link for Web-Based		
Applications		
Use of Correlation Combination to Achieve Channel	10/119,522	4/9/02
Detection		
Non-Intrusive Detection of Enhanced Capabilities at	09/871,154	5/31/01
Existing Cellsites in a Wireless Data		
Communication System		
Coded Reverse Link Messages for Closed-Loop	10/137,116	5/1/02
Power Control of Forward Link Control Messages		
Adaptive Pointing for Use with Directional	10/429,183	5/2/03
Antennas Operating in Wireless Networks		
Aperiodic Array Antenna	10/357,276	1/31/03
System and Method for Coordination of Wireless	10/170,015	6/11/02
Maintenance Channel Power Control		
Transmittal of Heartbeat Signal at a Lower Level	10/171,080	6/12/02
than Heartbeat Request		
Multi-Detection of Heartbeat to Reduce Error	10/171,378	6/12/02
Probability		
Use of Orthogonal or New Orthogonal Codes in	10/196,569	7/15/02
Reverse Link		
ASIC Interface for Controlling Adaptive Antenna	60/361,418	3/1/02
Array		

#### SCHEDULE A

# UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Dual Band Phased Array Employing Spatial Second	10/292,384	11/8/02
Harmonics		
Applying Session Services Based on Packet Flows	10/166,576	6/10/02
Random Early Detection Over Wireless Links	10/302,797	11/21/02
Component Technology Proposal for an Orthogonal	60/427,847	11/20/02
Reverse Link	·	
Techniques for Reducing Overhead in a	10/350,309	1/22/03
Communications System	,	
Techniques for Setting Up Traffic Channels in a	10/350,308	1/22/03
Communications System	-	
Beamforming Using a Backplane and Passive	10/348,202	1/20/03
Antenna Element	ŕ	-, -, -, -, -, -, -, -, -, -, -, -, -, -
Antenna Adaptation Comparison Method for High	60/363,669	3/11/02
Mobility	ŕ	
Antenna Adaptation Comparison Method for High	10/386,364	3/10/03
Mobility	,	
Antenna Adaptation During Power Control Bits	60/363,214	3/8/02
Times at High Mobility	,	2, 3, 32
Antenna Adaptation to Manage the Active Set to	10/386,392	3/10/03
Manipulate Soft Hand-Off Regions	, <b>,</b>	5,10,05
Adaptive Receive and Omnidirectional Transmit	10/386,393	3/10/03
Antenna Array	, <b>,</b>	37 10,03
Aperiodic Array Antenna	60/419,431	10/17/02
Mobile Communication Handset with Adaptive	10/390,531	3/14/03
Antenna Array	, , , , , , , , , , , , , , , , , , , ,	3,11,05
Antenna Adaptation in the TIME Division	10/434,437	5/7/03
Duplexing System	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	317703
Adaptive Terminal Based Smart Antenna for Use in	60/378,908	5/7/02
a Time Division Multiple Access (TDMA) System		577702
Antenna Steering Scheduler for Mobile Station in	10/462,569	6/16/03
Wireless Local Area Network	10, 102,00	0,10,05
Covert Spatially Separated Antenna Package for	10/462,582	6/16/03
Wireless Repeater	· · · · · · · · · · · · · · · · · ·	0,10,05
Low Cost Multiple Pattern Antenna for Use with	60/411,570	9/17/02
Multiple Receiver Systems		
Directional Antenna Physical Layer Steering for	60/414,947	9/30/02
WLAN	· · · · · · · · · · · · · · · · · ·	2120102
Directional Antenna Physical Layer Steering for	60/415,847	10/3/02
WLAN		10/3/04
Software Based Antenna Steering for WLAN	60/414,946	9/30/02

#### SCHEDULE A

#### UNITED STATES PATENT APPLICATIONS

Title	Application No.	Application Date
stelligent Interface for Controlling an Adaptive	60/415,265	9/30/02
intenna Array		
stelligent Interface for Controlling an Adaptive	10/378,565	3/3/03
ntenna Array		
Intenna Steering Algorithm for an 802.11 Access	60/479,701	6/19/03
oint		
intenna Steering Algorithm for an 802.11 Station	60/479,640	6/19/03
pplication of User Equipment Antenna to Time	60/466,535	4/29/03
ivision Duplex System		
epeater for Extending Range of Time Division	60/390,094	6/15/02
Applex Communication System		
laintaining a Maintenance Channel in a Reverse	10/339,183	1/8/03
ink of a Wireless Communication System		

#### SCHEDULE B

#### **UNITED STATES PATENTS**

<u>Title</u>	Patent No.	Grant Date
Protocal Conversion and Bandwidth Reduction	6,151,332	11/21/00
chnique Providing Multiple nB+D ISND Basic		
ate Interface Links Over a Wireless Code Division		
Aultiple Access Communication System		
ynamic Bandwidth Allocation to Transmit a	6,081,536	6/27/00
Vireless Protocol Across a Code Division Multiple		
ccess (CDMA) Radio Link		
ynamic Frame Size Adjustment and Selective	6,236,647	5/22/01
cject on a Multi-Link Channel to Improve		:
Nective Throughput and Bit Error Rate		
ynamic Bandwidth Allocation for Multiple Access	6,388,999	5/14/02
ommunications Using Buffer Urgency Factor	(	1010
ast Acquisitions of Traffic Channels for a Highly	6,222,832	4/24/01
ariable Data Rate Reverse Link of a CDMA		
Vireless Communication System	£ 150.010	0/17/00
ast Acquisitions of Traffic Channels for a Highly	6,452,913	9/17/02
Pariable Data Rate Reverse Link of a CDMA		
Vireless Communication System	£ 456 925	0/04/00
rbitration Method for High Power Transmissions	6,456,835	9/24/02
n a Code Division Multiple Access System	( 545 000	4/8/03
dethod and Apparatus for a Spectrally Compliant	6,545,990	4/8/03
ellular Communication System	6,100,843	8/8/00
Adaptive Antenna for Use in Same Frequency	0,100,843	0/0/00
etworks Same	6,304,215	10/16/01
Method of Use for an Adaptive Antenna in Same	0,304,213	10/16/01
requency Networks (As Amended)	6,404,386	6/11/02
Maptive Antenna for Use in Same Frequency	0,404,360	0/11/02
Setworks Francis Same Francis	6,518,920	2/11/03
Saptive Antenna for Use in Same Frequency	0,310,920	2/11/03
Setworks Packeting Timeout Spoofing in a Wireless Data	6,553,032	4/22/03
Communications Network	0,555,052	4/22/03
Antenna Array Structure Stacked Over Printed	6,362,790	3/26/02
Wiring Board with Beamforming Components	0,502,790	5,20,02
bscriber-Controlled Registration Technique in a	6,563,809	5/13/03
OMA System	0,000,000	3/13/03
Method and Apparatus for Creating Non-Interfacing	6,212,220	4/3/01
Signals Using Non-Orthogonal Techniques	0,4,4,440	1.5.01
signals Oshik Holl-Orniokohar Lechniques		

#11.EGAL: #1449365 v1 (V2C501!.DOC)

#### **SCHEDULE B**

## UNITED STATES PATENTS

<u>Title</u>	Patent No.	Grant Date
ariable Rate Orthogonally Coded Reverse Link	6,421,336	7/16/02
tructure		
lethod and Apparatus for Adapting Antenna Array	6,473,036	10/29/02
Reduce Adaptation Time While Increasing Array		
erformance		
ual Mode Subscriber Unit for Short Range, High	6,526,034	2/25/03
ate and Long Range, Lower Rate Data		
ommunications		
lot Symbol Assisted Modulation and	6,301,291	10/9/01
emodulation in Wireless Communication Systems		
ntenna Array with Housing	6,239,756	5/29/01
ccess Probe Acknowledgment Including Collision	6,545,994	4/8/03
etection to Avoid Oversetting Initial Power Level		
acked Dipole Antenna for Use in Wireless	6,396,456	5/28/02
ommunications System		
eceiver for Time Division Multiplex System	6,463,074	10/8/02
Athout Explicit Time Slot Assignment		
ethod and Apparatus for Frequency Selective	6,448,938	9/10/02
cam Forming		
ethod and Apparatus for Antenna Control in a	6,400,317	6/4/02
ommunications Network		
daptive Antenna for Use in Wireless	6,515,635	2/4/03
ommunication Systems		
rinted or Etched Folding Directional Antenna	6,476,773	11/5/02
onopole Antenna for Array Applications	6,417,806	7/9/02
pw Profile Dipole Antenna for Use in Wireless	6,369,771	4/9/02
ommunications Systems		
osely Spaced Antenna Array	6,369,770	4/9/02
oldable Directional Antenna	6,480,157	11/12/02
larification of the Dynamic Bandwidth Allocation	6,542,481	4/1/03
r Multiple Access Communications using Buffer		
rgency Factor		
ynamic Bandwidth Allocation To Transmit A	6,526,281	2/25/03
ireless ISDN Protocol Across A Code Division		
ultiple Access (CDMA) Radio Link		

#### NOTICE OF INTELLECTUAL PROPERTY SECURITY AGREEMENT

NOTICE dated the 22<sup>nd</sup> day of 2003, from Tantivy numerications, Inc., a Delaware corporation having admailing address at 1450 South Babcock red, Melbourne, Florida 32901 ("Debtor"), to and in favor of IPR Holdings Delaware, Inc., a Jaware corporation having a mailing address at 781 Third Avenue, King of Prussia, analysis 19406 ("Secured Party").

WHEREAS, Debtor is the owner of intellectual property as listed on Schedules A Schedule B hereto; and

WHEREAS, Secured Party has agreed to extend certain financial commodations to Debtor under that certain Security Agreement dated April 3, 2003, as seeded on July 10, 2003 and as may be amended in the future (the "Security Agreement"), on addition that the Debtor pledges and grants to Secured Party as collateral for the obligations of Debtor to Secured Party, a security interest and lien in and to such intellectual property lateral and application therefore described above, including the registrations thereof, the adwill associated therewith and all other related claims and rights as more fully described in a tain Security Agreement in favor of Secured Party ("Intellectual Property");

NOW THEREFORE, for good and valuable consideration, the receipt and finderacy of which are hereby acknowledged, and as security for the due and timely payment a performance of the obligations, Debtor hereby pledges, grants and collaterally assigns to cured Party a security interest and lien in and to all rights, title and interest in and to the aresaid Intellectual Property, and gives notice of such security interest and the existence of the Security Agreement providing therefor.

Executed as of the date first above written.

ANTIVY COMMUNICATIONS, INC

tle: Vrasidant

IGAL: #1445015 v1 (%YZB011.DOC)

NTE OF Elareda: s.s.

On this Diday of July, 2003 before me, a Notary Public for the said many and State, personally appeared Lisa M. Loll, known to me, and who, being first by duly sworn, deposed and said that s/he is the <u>flesionary CAU</u> of Tantivy summunications, Inc. and that s/he executed said instrument on behalf of said corporation by thority of its Board of Directors, and that s/he acknowledged said instrument to be the free act ill deed of said corporation.

Kartleen X. Klayo Notary Public

y Commission expires:

May 3, 2005

Notarial Seal)



# Spper Hamilton LLP

00 Two Logan Square Meenth and Arch Streets adelphia, PA 19103-2799 \$981.4000 \$215.981.4750

215.981.4714 schwartzme@pepperlaw.com

July 24, 2003

#### PRESS MAIL NO. EL825395677US

numissioner for Patents and Trademarks IX ASSIGNMENT shington, DC 20231

Re:

Recordation of Notice of Intellectual Property Security Agreement

Madam:

I am enclosing the following documents:

- 1. An original and one copy of Recordation Form Cover Sheet Patents by to record the Notice of Intellectual Property Security Agreement against the patents listed schedules A and B attached thereto;
- 2. A copy of the Notice of Intellectual Property Security Agreement between tivy Communications, Inc. and IPR Holdings Delaware, Inc., dated July 22, 2003; and
- 3. This Firm's check in the amount of \$5,720.00 to cover the required filing The Commissioner is authorized to deduct the additional filing fee of \$160.00 from Deposit ount No. 16-1322.

Please acknowledge receipt of this filing by time stamping and returning the losed self-addressed postcard.

Thank you for your attention to this matter.

Sincerely yours,

Mindy Ellis Schwartz

losures

AL: #1449686 v1 (V2L201!.DOC)

adelphia Washington, D.C.

C. De

New York

Indy Ellis Schwartz

Pittsburgh

ayn.

Cherry Hill

Harrisburg

Princeton

Tysons Carner

Wilmington

www.pepperlaw.com

Recordation Cover Sheet (Patents Only)

Notice of Intellectual Property Security Agreement between Tantivy

Communications, Inc. and IPR Holdings Delaware, Inc. dated July 22, 2003

EXPRESS MAIL" MAILING LABEL NUMBER: EL825395677US

DATE OF DEPOSIT:

July 24, 2003

HEREBY CERTIFY THAT THIS PAPER OR FEE IS BEING DEPOSITED WITH THE INITED STATES POSTAL SERVICE "EXPRESS MAIL POST OFFICE TO ADDRESSEE" ERVICE UNDER 37 CFR 1.10 ON THE DATE INDICATED ABOVE AND IS ADDRESSED TO COMMISSIONER FOR PATENTS AND TRADEMARKS, BOX ASSIGNMENTS, WASHINGTON, DC 20231.

osemary A. Mulligan	
Typed or printed name of person mailing p	paper or fee)
	• • • • • • • • • • • • • • • • • • • •
Bounn a marchini	
Marine a hard	

Signature of person mailing paper or fee)

新見取りAL: #1451114 v1 (V3\_Q01!.DOC)

#### SCHEDULE A

#### **UNITED STATES PATENT APPLICATIONS**

<u>Title</u>	Application No.	Application Date
toating IP Address for Roaming Internet	09/328,663	6/9/99
omected Subscriber Units		
ast Acquisition of Traffic Channels for a Highly	09/730,376	12/5/00
mable Data Rate Reverse Link of a CDMA		
vircless Communication System		
witem and Method for Maintaining Wireless	09/997,621	11/29/01
hannels Over a Reverse Link of CDMA Wireless		
mmunication System		
ystem and Method for Maintaining Timing of	09/997,732	11/29/01
Inchronization Messages Over a Reverse Link of		
MA Wireless Communication System		
votem and Method for Controlling Signal Strength	09/997,733	11/29/01
ver a Reverse Link of CDMA Wireless		
System System		
** Acquisition of Traffic Channels for a Highly	10/179,121	6/24/02
ariable Data Rate Reverse Link of a CDMA		
Fireless Communication System		
aintenance of Channel Usage in a Wireless	09/288,229	4/8/99
ommunication System (Amended)		
witem and Method for Interleaving Compressed	09/847,859	5/2/01
Audio/Video (A/V) Data Frames		
otimal Load-Based Wireless Session Context	09/626,784	7/27/00
honsfer		
wer Control Protocol for Highly Variable Data	09/158,421	9/21/98
Attack Reverse Link of a Wireless Communication		
i stein		
ethod and Apparatus for a Spectrally Compliant	10/409,031	4/7/03
Adular Communication System		
tethod and Apparatus Providing an Adaptive	09/157,736	9/21/98
Intenna for Use in Same Frequency Networks		
oeuing Far/Far Service Requests in Wireless	09/773,255	1/31/01
atwork		
wward Error Correction on Multiplexed CDMA	09/263,358	3/5/99
mannels Enabling High Performance Coding		
wward Error Correction Scheme for High Rate	09/301,484	4/28/99
Mata Exchange in a Wireless System		
whod for Using a Non-Orthogonal Pilot Signal	09/772,200	1/29/01
ith Data Channel Interference Cancellation		
hiscriber-Controlled Registration Technique in a	10/435,927	5/12/03
MA System		
ariable Rate Coding for Forward Link	09/447,022	11/22/99
me-Slotted Data Packets with a Preamble	09/845,240	4/30/01

A-1

##. #JAL: #1445015 v1 (%4YZB011.DOC)

**REEL: 033215 FRAME: 0537** 

#### UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Method and Apparatus for Adapting Antenna Array	10,282,928	10/28/02
Using Received Predetermined Signal		
Method and System for Economical Beam Forming	09/791,503	2/23/01
in a Radio Communication System		
Oual Mode Unit for Short Range, High Rate and	10/341,528	1/13/03
Long Range, Lower Rate Data Communications		
Dual Mode Unit for Short Range, High Rate and	10/358,082	2/3/03
long Range, Lower Rate Data Communications		
Wo-Tier Hi-Speed Wireless Communication Link	09/384,072	8/26/99
Minimal Maintenance Link to Support	09/778,474	2/7/01
Synchronization	•	
Method for Searching Pilot Signals to Synchronize a	60/184,363	2/23/00
CDMA Receiver with an Associated Transmitter		
Method for Searching Pilot Signals to Synchronize a	09/789,476	2/20/01
CDMA Receiver with an Associated Transmitter	·	
Neverse Link Pilot Integrated with Block Codes	09/728,575	11/30/00
Reverse Link Correlation Filter in Wireless	60/184,364	2/23/00
Communication Systems		
Reverse Link Correlation Filter in Wireless	09/738,934	12/15/00
Communication Systems	•	
Access Channel Structure for Wireless	09/766,875	1/19/01
Communication System		
Adaptive Compression in an Edge Router	09/774,545	1/31/01
Reverse Link Initial Power Setting Using Effective	09/792,870	2/23/01
Radiated Power Message to Compute Path Loss		
Reverse Link Initial Power Setting Using Effective	10/401,115	3/26/03
Radiated Power Message to Compute Path Loss		
Method and Apparatus for Simple PPP Handoff for	09/771,929	1/29/01
Mobile Users		
Urade of Service and Fairness Policy for Bandwidth	09/778,478	2/7/01
Reservation System		
Staggering Forward and Reverse Channel	09/691,874	10/19/00
Allocation Timing		
Method and Apparatus for Wireless Router	09/630,024	7/31/00
Multicast		
Wireless Channel Allocation in a Base Station	09/565,095	5/5/00
Processor		
Receiver for Time Division Multiplex System	10/266,079	10/7/02
Without Explicit Time Slot Assignment	-	
Automatic Reverse Channel Assignment in a Two-	09/574,622	5/19/00
Way TDM Communication System	-	
Firewall Protection for Wireless Users	09/847,865	5/2/01

##ILEGAL: #1445015 v1 (%YZB01).DOC)

A-2

#### UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Maximizing Data Rate by Adjusting Codes and	09/773,253	1/31/01
Code Rates in CDMA System	•	
Wireless Communication System Having Mobility-	09/845,241	4/30/01
ased Content Delivery	·	
Electronic Phase Shifter with Enhanced Phase Shift	09/774,534	1/31/01
Performance	ŕ	
Method and Apparatus for Frequency Selective	10/234,036	8/30/02
Beam Forming		
Adaptive Antenna for Use in Wireless	09/847,065	5/1/01
Communication System		
Achieving PPP Mobility Via the Mobile IP	09/773,364	1/31/01
nfrastructure		*
roxy Mobile Node Capability for Mobile IP	09/826,060	4/4/01
Method for Allowing Multi-User Orthogonal and	09/898,514	7/3/01
Non-Orthogonal Interoperability of Code Channels		
system and Method to Preform Directional Re-Scan	09/776,396	2/2/01
of an Adaptive Antenna		
Adaptive Antenna for Use in Wireless	09/859,001	5/16/01
Communication Systems		
Adaptive Antenna for Use in Wireless	10/441,977	5/20/03
Communication Systems		
Dynamic Internet Content Filtering by Means of	09/820,204	3/28/01
Measured Throughput to the User		
improving Resources Utilization Efficiency During	09/802,128	3/8/01
land-Off in Mobile Communication Systems		
Folding Directional Antenna	10/288,256	11/4/02
fficient Handoffs Using LTCP in Cellular Packet	09/823,288	8/28/00
Vetworks 6		
ink-Aware Transmission Control Protocol	09/777,557	2/5/01
Application Specific Traffic Optimization in a	09/777,555	2/5/01
Wireless Link		
Alternate Channel for Carrying Selected Message	09/775,304	2/1/01
ypes		
Antenna for Array Applications	10,146,501	5/14/02
Method of Detection of Signals Using an Adaptive	09/952,198	9/13/01
Antenna in a Peer-to-Peer Network		
Antenna Control System and Method	09/999,172	11/30/01
Directional Antenna	10,282,955	10/28/02
Narrowband Gain Control of Receiver with Digital	09,847,056	5/1/01
ost-Filtering	<u> </u>	
Method and Apparatus for Detecting Rapid Changes	09/772,176	1/29/01
a Signaling Path Environment		

#LEGAL: #1445015 v1 (%YZB011.DOC)

A-3

#### **UNITED STATES PATENT APPLICATIONS**

<u>Title</u>	Application No.	Application Date
Vireless Subscriber Network Registration System	09/841,695	4/24/01
r Configurable Services		
ynamic Bandwidth Allocation for Multiple Access	09/773,252	1/31/01
ommunications Using Session Queues		
faintenance Link Using Active/Standby Request	09/775,305	2/1/01
hannels		
ual Split Proxy Gateway for Improving	09/850,531	5/7/01
hroughout Performance Over a Wireless Interface		
ualifying Available Reverse Link Coding Rates	09/792,637	2/23/01
om Access Channel Power Setting		
igh Gain Planar Scanned Array	09/845,133	4/30/01
sst Switching of Forward Link in Wireless System	09/847,860	5/02/01
tethod and Apparatus for Improving Utilization	09/876,843	6/6/01
fficiency of Wireless Link for Web-Based		
pplications		
se of Correlation Combination to Achieve Channel	10/119,522	4/9/02
etection		
on-Intrusive Detection of Enhanced Capabilities at	09/871,154	5/31/01
xisting Cellsites in a Wireless Data		
ommunication System		
oded Reverse Link Messages for Closed-Loop	10/137,116	5/1/02
ower Control of Forward Link Control Messages		
daptive Pointing for Use with Directional	10/429,183	5/2/03
intennas Operating in Wireless Networks		
periodic Array Antenna	10/357,276	1/31/03
ystem and Method for Coordination of Wireless	10/170,015	6/11/02
Maintenance Channel Power Control		
ransmittal of Heartbeat Signal at a Lower Level	10/171,080	6/12/02
han Heartbeat Request		
fulti-Detection of Heartbeat to Reduce Error	10/171,378	6/12/02
robability		
ise of Orthogonal or New Orthogonal Codes in	10/196,569	7/15/02
everse Link	,	
SIC Interface for Controlling Adaptive Antenna	60/361,418	3/1/02
uray	·	
Jual Band Phased Array Employing Spatial Second	10/292,384	11/8/02
larmonics		
Applying Session Services Based on Packet Flows	10/166,576	6/10/02
andom Early Detection Over Wireless Links	10/302,797	11/21/02
Component Technology Proposal for an Orthogonal	60/427,847	11/20/02
teverse Link		

#HLEGAL: #1445015 v1 (%YZB011.DOC)

A-4

#### UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Sechniques for Reducing Overhead in a	10/350,309	1/22/03
Communications System		
chniques for Setting Up Traffic Channels in a	10/350,308	1/22/03
communications System		
Scamforming Using a Backplane and Passive	10/348,202	1/20/03
Antenna Element		
Antenna Adaptation Comparison Method for High	60/363,669	3/11/02
Mobility		
Antenna Adaptation Comparison Method for High	10/386,364	3/10/03
Mobility		
Antenna Adaptation During Power Control Bits	60/363,214	3/8/02
Times at High Mobility		
Antenna Adaptation to Manage the Active Set to	10/386,392	3/10/03
Manipulate Soft Hand-Off Regions		
Adaptive Receive and Omnidirectional Transmit	10/386,393	3/10/03
Antenna Array		***************************************
Aperiodic Array Antenna	60/419,431	10/17/02
Mobile Communication Handset with Adaptive	10/390,531	3/14/03
Antenna Array		
Antenna Adaptation in the TIME Division	10/434,437	5/7/03
Duplexing System	4010-0-000	
Adaptive Terminal Based Smart Antenna for Use in	60/378,908	5/7/02
a Time Division Multiple Access (TDMA) System	10/160 560	CH C (00
Antenna Steering Scheduler for Mobile Station in	10/462,569	6/16/03
Wireless Local Area Network	10/4/0 500	6/16/02
Covert Spatially Separated Antenna Package for	10/462,582	6/16/03
Wireless Repeater	60/411,570	9/17/02
Low Cost Multiple Pattern Antenna for Use with	00/411,570	9/1//02
Multiple Receiver Systems Directional Antenna Physical Layer Steering for	60/414,947	9/30/02
	00/414,947	9/30/02
WLAN Directional Antenna Physical Layer Steering for	60/415,847	10/3/02
	00/413,647	10/3/02
WLAN	60/414,946	9/30/02
Software Based Antenna Steering for WLAN Intelligent Interface for Controlling an Adaptive	60/415,265	9/30/02
	00/415,205	9/30/02
Antenna Array	10/378,565	3/3/03
Intelligent Interface for Controlling an Adaptive	10/3/8,303	3/3/03
Antenna Array	60/479,701	6/19/03
Antenna Steering Algorithm for an 802.11 Access	00/4/9,/01	0/19/03
Point Antenna Steering Algorithm for an 802.11 Station	60/479,640	6/19/03
Antenna Steering Algorium for an 802.11 Station	00/4/9,040	) 0/19/03

PHLEGAL: #1445015 v1 (%YZB011.DOC)

A-5

## UNITED STATES PATENT APPLICATIONS

Title	Application No.	Application Date
Application of User Equipment Antenna to Time	60/466,535	4/29/03
Division Duplex System		
Repeater for Extending Range of Time Division	60/390,094	6/15/02
Denlex Communication System		
Maintaining a Maintenance Channel in a Reverse	10/339,183	01/08/03
Link of a Wireless Communication System		

A-6

PHLEGAL: #1445015 v1 (%YZB011.DOC)

#### **UNITED STATES PATENTS**

<u>Title</u>	Patent No.	Grant Date
A Protocal Conversion and Bandwidth Reduction	6,151,332	11/21/00
Technique Providing Multiple nB+D ISND Basic	•	
Rate Interface Links Over a Wireless Code Division		
Multiple Access Communication System		
Dynamic Bandwidth Allocation to Transmit a	6,081,536	6/27/00
Wireless Protocol Across a Code Division Multiple		
Access (CDMA) Radio Link		
Dynamic Frame Size Adjustment and Selective	6,236,647	5/22/01
Reject on a Multi-Link Channel to Improve		
Effective Throughput and Bit Error Rate		
Dynamic Bandwidth Allocation for Multiple Access	6,388,999	5/14/02
Communications Using Buffer Urgency Factor	, , , , , ,	- I II Va
Fast Acquisitions of Traffic Channels for a Highly	6,222,832	4/24/01
Variable Data Rate Reverse Link of a CDMA	, ,	//W U V A
Wireless Communication System		
Fast Acquisitions of Traffic Channels for a Highly	6,452,913	9/17/02
Variable Data Rate Reverse Link of a CDMA	,	2711102
Wireless Communication System		
Arbitration Method for High Power Transmissions	6,456,835	9/24/02
in a Code Division Multiple Access System	, .,	>. Z 1. UZ
Method and Apparatus for a Spectrally Compliant	6,545,990	4/8/03
Cellular Communication System	.,,	., 0, 05
Adaptive Antenna for Use in Same Frequency	6,100,843	8/8/00
Networks	.,,	0,0,00
A Method of Use for an Adaptive Antenna in Same	6,304,215	10/16/01
frequency Networks (As Amended)	-,,	10/10/01
Adaptive Antenna for Use in Same Frequency	6,404,386	6/11/02
Networks	-,, - 0	W/ X X / U.Z.
Adaptive Antenna for Use in Same Frequency	6,518,920	2/11/03
Networks	-,,	w iii
Packeting Timeout Spoofing in a Wireless Data	6,553,032	4/22/03
Communications Network	-,000,000	TI WAI UJ
Antenna Afray Structure Stacked Over Printed	6,362,790	3/26/02
Wiring Board with Beamforming Components	-3	5/40/02
Subscriber-Controlled Registration Technique in a	6,563,809	5/13/03
CDMA System	2,000,000	3) 131 03
Method and Apparatus for Creating Non-Interfacing	6,212,220	4/3/01
Signals Using Non-Orthogonal Techniques	0,212,220	4/3/01

PHLEGAL: #1445015 v1 (%YZB011.DOC)

A-1

#### **UNITED STATES PATENTS**

<u>Title</u>	Patent No.	Grant Date
Variable Rate Orthogonally Coded Reverse Link	6,421,336	7/16/02
Structure		
Method and Apparatus for Adapting Antenna Array	6,473,036	10/29/02
Reduce Adaptation Time While Increasing Array		
Performance		
Dual Mode Subscriber Unit for Short Range, High	6,526,034	2/25/03
Rate and Long Range, Lower Rate Data		
Communications	-	
Pilot Symbol Assisted Modulation and	6,301,291	10/9/01
Demodulation in Wireless Communication Systems		
Antenna Array with Housing	6,239,756	5/29/01
Access Probe Acknowledgment Including Collision	6,545,994	4/8/03
Detection to Avoid Oversetting Initial Power Level		
Stacked Dipole Antenna for Use in Wireless	6,396,456	5/28/02
Communications System	,	
Receiver for Time Division Multiplex System	6,463,074	10/8/02
Without Explicit Time Slot Assignment		
Method and Apparatus for Frequency Selective	6,448,938	9/10/02
Beam Forming		
Method and Apparatus for Antenna Control in a	6,400,317	6/4/02
Communications Network		
Adaptive Antenna for Use in Wireless	6,515,635	2/4/03
Communication Systems		
Printed or Etched Folding Directional Antenna	6,476,773	11/5/02
Monopole Antenna for Array Applications	6,417,806	7/9/02
Low Profile Dipole Antenna for Use in Wireless	6,369,771	4/9/02
Communications Systems		
Closely Spaced Antenna Array	6,369,770	4/9/02
Foldable Directional Antenna	6,480,157	11/12/02
Clarification of the Dynamic Bandwidth Allocation	6,542,481	04/01/03
for Multiple Access Communications using Buffer		
Urgency Factor		
Dynamic Bandwidth Allocation To Transmit A	6,526,281	02/25/03
Wireless ISDN Protocol Across A Code Division		
Multiple Access (CDMA) Radio Link		

PHLEGAL: #1445015 v1 (%YZB01!.DOC)

A-2

#### SCHEDULE B

#### UNITED STATES TRADEMARKS

Mark	Reg./Serial No.	Reg./Filing Date
I-CDMA	2,733,597	7/1/03
TANTIVY	2,724,112	6/10/03
TANTIVY and Design	2,724,111	6/10/03
TSP	76/195,758	1/18/01

B-1

PHLEGAL: #1445015 v1 (%YZB011.DOC)

#### SCHEDULE A

## UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Ploating IP Address for Roaming Internet	09/328,663	6/9/99
Connected Subscriber Units		}
ast Acquisition of Traffic Channels for a Highly	09/730,376	12/5/00
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
System and Method for Maintaining Wireless	09/997,621	11/29/01
Channels Over a Reverse Link of CDMA Wireless		
Communication System		
System and Method for Maintaining Timing of	09/997,732	11/29/01
Synchronization Messages Over a Reverse Link of	·	
CDMA Wireless Communication System		
System and Method for Controlling Signal Strength	09/997,733	11/29/01
Over a Reverse Link of CDMA Wireless		
Communication System		
Fast Acquisition of Traffic Channels for a Highly	10/179,121	6/24/02
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
Maintenance of Channel Usage in a Wireless	09/288,229	4/8/99
Communication System (Amended)		
System and Method for Interleaving Compressed	09/847,859	5/2/01
Audio/Video (A/V) Data Frames		
Optimal Load-Based Wireless Session Context	09/626,784	7/27/00
Transfer		
Power Control Protocol for Highly Variable Data	09/158,421	9/21/98
Rate Reverse Link of a Wireless Communication		
System		
Method and Apparatus for a Spectrally Compliant	10/409,031	4/7/03
Cellular Communication System		
Method and Apparatus Providing an Adaptive	09/157,736	9/21/98
Antenna for Use in Same Frequency Networks	·	· · · <del>-</del>
Queuing Far/Far Service Requests in Wireless	09/773,255	1/31/01
Network		
Forward Error Correction on Multiplexed CDMA	09/263,358	3/5/99
Channels Enabling High Performance Coding	·	
Forward Error Correction Scheme for High Rate	09/301,484	4/28/99
Data Exchange in a Wireless System		
Method for Using a Non-Orthogonal Pilot Signal	09/772,200	1/29/01
with Data Channel Interference Cancellation		
Subscriber-Controlled Registration Technique in a	10/435,927	5/12/03
CDMA System	·	
Variable Rate Coding for Forward Link	09/447,022	11/22/99

PHLEGAL: #1449365 v1 (V2C501!.DOC)

#### SCHEDULE A

## UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Time-Slotted Data Packets with a Preamble	09/845,240	4/30/01
Method and Apparatus for Adapting Antenna Array	10,282,928	10/28/02
Using Received Predetermined Signal		
Method and System for Economical Beam Forming	09/791,503	2/23/01
in a Radio Communication System		
Dual Mode Unit for Short Range, High Rate and	10/341,528	1/13/03
Long Range, Lower Rate Data Communications		
Dual Mode Unit for Short Range, High Rate and	10/358,082	2/3/03
Long Range, Lower Rate Data Communications		
Two-Tier Hi-Speed Wireless Communication Link	09/384,072	8/26/99
Minimal Maintenance Link to Support	09/778,474	2/7/01
Synchronization		
Method for Searching Pilot Signals to Synchronize a	60/184,363	2/23/00
CDMA Receiver with an Associated Transmitter		
Method for Searching Pilot Signals to Synchronize a	09/789,476	2/20/01
CDMA Receiver with an Associated Transmitter		
Reverse Link Pilot Integrated with Block Codes	09/728,575	11/30/00
Reverse Link Correlation Filter in Wireless	60/184,364	2/23/00
Communication Systems		
Reverse Link Correlation Filter in Wireless	09/738,934	12/15/00
Communication Systems		
Access Channel Structure for Wireless	09/766,875	1/19/01
Communication System		
Adaptive Compression in an Edge Router	09/774,545	1/31/01
Reverse Link Initial Power Setting Using Effective	09/792,870	2/23/01
Radiated Power Message to Compute Path Loss		
Reverse Link Initial Power Setting Using Effective	10/401,115	3/26/03
Radiated Power Message to Compute Path Loss		
Method and Apparatus for Simple PPP Handoff for	09/771,929	1/29/01
Mobile Users		
Grade of Service and Fairness Policy for Bandwidth	09/778,478	2/7/01
Reservation System		
Staggering Forward and Reverse Channel	09/691,874	10/19/00
Allocation Timing		
Method and Apparatus for Wireless Router	09/630,024	7/31/00
Multicast	***************************************	
Wireless Channel Allocation in a Base Station	09/565,095	5/5/00
Processor		
Receiver for Time Division Multiplex System	10/266,079	10/7/02
Without Explicit Time Slot Assignment		

# RECORDATION FORM COVER SHEET – PATENTS ONLY SCHEDULE A

# UNITED STATES PATENT APPLICATIONS

Automatic Powers Cl	Application No.	Application
Automatic Reverse Channel Assignment in a Two-	09/574,622	Application Date
Way TDM Communication System Firewall Protection for Wireless Users	, , , , , , , , , , , , , , , , , , ,	5/19/00
Maximizing Deta Bart I wireless Users	09/847,865	5/2/01
Maximizing Data Rate by Adjusting Codes and Code Rates in CDMA System	09/773,253	1/31/01
Wireless Communication	,255	1/31/01
Wireless Communication System Having Mobility- Based Content Delivery	09/845,241	4/30/01
Electronic Phase Chie	,	4/30/01
Electronic Phase Shifter with Enhanced Phase Shift Performance	09/774,534	1/31/01
		1/31/01
Method and Apparatus for Frequency Selective Beam Forming	10/234,036	8/30/02
Adaptive Andrew C. Ti	1,720	0/30/02
Adaptive Antenna for Use in Wireless	09/847,065	E /1 /01
Communication System	11.0.1,005	5/1/01
Achieving PPP Mobility Via the Mobile IP Infrastructure	09/773,364	1/21/01
mil astructure	37775,504	1/31/01
Proxy Mobile Node Capability for Mobile IP	09/826,060	4/4/04
wellog for Allowing Multi-Ligar Outhors 1	09/898,514	4/4/01
woll-Ollilogonal Interoperability of Code Channel	05/050,514	7/3/01
bysicin and Method to Preform Directional De Sand	09/776,396	5/5/5
of all Adaptive Antenna	05/1/0,390	2/2/01
Adaptive Antenna for Use in Wireless	09/859,001	
communication Systems	05/059,001	5/16/01
Adaptive Antenna for Use in Wireless	10/441,977	
communication Systems	10/441,9//	5/20/03
Dynamic Internet Content Filtering by Means of	00/920 204	
vicasured i proughput to the User	09/820,204	3/28/01
Improving Resources Utilization Efficiency During	00/902 120	
rialid-Off in Mobile Communication Systems	09/802,128	3/8/01
rolding Directional Antenna	10/200 055	
Efficient Handoffs Using LTCP in Cellular Packet	10/288,256	11/4/02
TOUNDIAS	09/823,288	8/28/00
Link-Aware Transmission Control Protocol	00/222 555	
Application Specific Traffic Optimization in a	09/777,557	2/5/01
Wheless Link	09/777,555	2/5/01
Alternate Channel for Carrying Selected Message		
Types	09/775,304	2/1/01
Antenna for Array Applications		
Method of Detection of Signals Using an Adaptive	10,146,501	5/14/02
Antenna in a Peer-to-Peer Network	09/952,198	9/13/01
Antenna Control System and Method		
System and Michiga	09/999,172	11/30/01

PATENT REEL: 033215 FRAME: 0548

## SCHEDULE A

# UNITED STATES PATENT APPLICATIONS

Title	Application No.	Application Date
Directional Antenna	10,282,955	10/28/02
Narrowband Gain Control of Receiver with Digital Post-Filtering	09,847,056	5/1/01
Method and Apparatus for Detecting Rapid Changes in Signaling Path Environment	09/772,176	1/29/01
Wireless Subscriber Network Registration System for Configurable Services	09/841,695	4/24/01
Dynamic Bandwidth Allocation for Multiple Access Communications Using Session Queues	09/773,252	1/31/01
Maintenance Link Using Active/Standby Request Channels	09/775,305	2/1/01
Dual Split Proxy Gateway for Improving Throughout Performance Over a Wireless Interface	09/850,531	5/7/01
Qualifying Available Reverse Link Coding Rates from Access Channel Power Setting	09/792,637	2/23/01
High Gain Planar Scanned Array	09/845,133	4/30/01
Fast Switching of Forward Link in Wireless System	09/847,860	5/02/01
Method and Apparatus for Improving Utilization Efficiency of Wireless Link for Web-Based Applications	09/876,843	6/6/01
Use of Correlation Combination to Achieve Channel Detection	10/119,522	4/9/02
Non-Intrusive Detection of Enhanced Capabilities at Existing Cellsites in a Wireless Data Communication System	09/871,154	5/31/01
Coded Reverse Link Messages for Closed-Loop Power Control of Forward Link Control Messages	10/137,116	5/1/02
Adaptive Pointing for Use with Directional Antennas Operating in Wireless Networks	10/429,183	5/2/03
Aperiodic Array Antenna	10/357,276	1/31/03
System and Method for Coordination of Wireless Maintenance Channel Power Control	10/170,015	6/11/02
Transmittal of Heartbeat Signal at a Lower Level than Heartbeat Request	10/171,080	6/12/02
Multi-Detection of Heartbeat to Reduce Error Probability	10/171,378	6/12/02
Use of Orthogonal or New Orthogonal Codes in Reverse Link	10/196,569	7/15/02
ASIC Interface for Controlling Adaptive Antenna Array	60/361,418	3/1/02

#### SCHEDULE A

#### **UNITED STATES PATENT APPLICATIONS**

<u>Title</u>	Application No.	Application Date
Dual Band Phased Array Employing Spatial Second	10/292,384	11/8/02
Harmonics		
Applying Session Services Based on Packet Flows	10/166,576	6/10/02
Random Early Detection Over Wireless Links	10/302,797	11/21/02
Component Technology Proposal for an Orthogonal	60/427,847	11/20/02
Reverse Link		
Techniques for Reducing Overhead in a	10/350,309	1/22/03
Communications System		
Techniques for Setting Up Traffic Channels in a	10/350,308	1/22/03
Communications System		
Beamforming Using a Backplane and Passive	10/348,202	1/20/03
Antenna Element		
Antenna Adaptation Comparison Method for High	60/363,669	3/11/02
Mobility		
Antenna Adaptation Comparison Method for High	10/386,364	3/10/03
Mobility		
Antenna Adaptation During Power Control Bits	60/363,214	3/8/02
Times at High Mobility	,	
Antenna Adaptation to Manage the Active Set to	10/386,392	3/10/03
Manipulate Soft Hand-Off Regions	ŕ	
Adaptive Receive and Omnidirectional Transmit	10/386,393	3/10/03
Antenna Array		
Aperiodic Array Antenna	60/419,431	10/17/02
Mobile Communication Handset with Adaptive	10/390,531	3/14/03
Antenna Array		
Antenna Adaptation in the TIME Division	10/434,437	5/7/03
Duplexing System		
Adaptive Terminal Based Smart Antenna for Use in	60/378,908	5/7/02
a Time Division Multiple Access (TDMA) System	•	
Antenna Steering Scheduler for Mobile Station in	10/462,569	6/16/03
Wireless Local Area Network	,	
Covert Spatially Separated Antenna Package for	10/462,582	6/16/03
Wireless Repeater	•	
Low Cost Multiple Pattern Antenna for Use with	60/411,570	9/17/02
Multiple Receiver Systems	,	
Directional Antenna Physical Layer Steering for	60/414,947	9/30/02
WLAN		2.20,02
Directional Antenna Physical Layer Steering for	60/415,847	10/3/02
WLAN		
Software Based Antenna Steering for WLAN	60/414,946	9/30/02

#### **SCHEDULE A**

# UNITED STATES PATENT APPLICATIONS

<u>Title</u>	Application No.	Application Date
Intelligent Interface for Controlling an Adaptive Antenna Array	60/415,265	9/30/02
Intelligent Interface for Controlling an Adaptive Antenna Array	10/378,565	3/3/03
Antenna Steering Algorithm for an 802.11 Access Point	60/479,701	6/19/03
Antenna Steering Algorithm for an 802.11 Station	60/479,640	6/19/03
Application of User Equipment Antenna to Time Division Duplex System	60/466,535	4/29/03
Repeater for Extending Range of Time Division Duplex Communication System	60/390,094	6/15/02
Maintaining a Maintenance Channel in a Reverse Link of a Wireless Communication System	10/339,183	1/8/03

#### **SCHEDULE B**

## UNITED STATES PATENTS

<u>Title</u>	Patent No.	Grant Date
A Protocal Conversion and Bandwidth Reduction	6,151,332	11/21/00
Technique Providing Multiple nB+D ISND Basic		
Rate Interface Links Over a Wireless Code Division		
Multiple Access Communication System		
Dynamic Bandwidth Allocation to Transmit a	6,081,536	6/27/00
Wireless Protocol Across a Code Division Multiple		
Access (CDMA) Radio Link		
Dynamic Frame Size Adjustment and Selective	6,236,647	5/22/01
Reject on a Multi-Link Channel to Improve		
Effective Throughput and Bit Error Rate		
Dynamic Bandwidth Allocation for Multiple Access	6,388,999	5/14/02
Communications Using Buffer Urgency Factor		
Fast Acquisitions of Traffic Channels for a Highly	6,222,832	4/24/01
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
Fast Acquisitions of Traffic Channels for a Highly	6,452,913	9/17/02
Variable Data Rate Reverse Link of a CDMA		
Wireless Communication System		
Arbitration Method for High Power Transmissions	6,456,835	9/24/02
in a Code Division Multiple Access System		
Method and Apparatus for a Spectrally Compliant	6,545,990	4/8/03
Cellular Communication System		
Adaptive Antenna for Use in Same Frequency	6,100,843	8/8/00
Networks		4. 4. 4.
A Method of Use for an Adaptive Antenna in Same	6,304,215	10/16/01
Frequency Networks (As Amended)		
Adaptive Antenna for Use in Same Frequency	6,404,386	6/11/02
Networks	, , , , , , , , , , , , , , , , , , , ,	0/11/02
Adaptive Antenna for Use in Same Frequency	6,518,920	2/11/03
Networks	.,,	2711105
Packeting Timeout Spoofing in a Wireless Data	6,553,032	4/22/03
Communications Network	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	11 <b>22</b> 1 03
Antenna Array Structure Stacked Over Printed	6,362,790	3/26/02
Viring Board with Beamforming Components	,,	J: 401 04
Subscriber-Controlled Registration Technique in a	6,563,809	5/13/03
CDMA System	-,,,	J. 1.J. U.J
Method and Apparatus for Creating Non-Interfacing	6,212,220	4/3/01
Signals Using Non-Orthogonal Techniques	V year a may gu V V	7/3/01

PHLEGAL: #1449365 v1 (V2C5011.DOC)

PATENT REEL: 033215 FRAME: 0552

\*RECORDED: 06/19/2014