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Additional name(s) of conveying party(ies) attached? Yes No. 3. Nature of conveyance/Execution Date(s): Execution Date(s) December 14, 2004 Assignment Merger Security Agreement Change of Name Joint Research Agreement Government Interest Assignment Executive Order 9424, Confirmatory License Other 4. Application or patent number(s): Additional numbers at	Street Address: 1122 Capital of Texas Highway South City: Austin State: Texas Country: United States of America Zip:78746-6426 Additional name(s) & address(es) attached? Yes No document is being filed together with a new application. B. Patent No.(s) 7,088,500
5. Name and address to whom correspondence concerning document should be malled:	6. Total number of applications and patents involved: One(1)
Name:Darren E. Wolf	7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40
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9. Signature: Signature Darren E Wolf	June 19, 2007 Date Total number of pages including cover 7
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ASSIGNMENT OF INVENTION

For: For: For: For: By:	 ☑ U.S. and/or ☑ Foreign Rights ☐ U.S. Application or ☐ U.S. Provisional Appl U.S. Patent ☐ PCT Application ☑ Inventor(s) or ☐ Present Owner 	plication
In consideration receipt of which is hereby	of the payment by ASSIGNEE(S) to ASSIGNOR y acknowledged, and for other good and valuable	R(S) of the sum of One Dollar (\$1.00), the consideration,
ASSIGNOR(S)		
Thomas D. Stephens Name of Assignor	2 Cadby Street, Brighton, Victoria 3186, A	Australia Australia Nationality
Recorded on	Reel I	Frame
hereby sells, assigns and	transfers to	
ASSIGNEE(S):		
Broadwing Corporation (Name of ASSIGNEE)	7015 Albert Einstein Drive, P.O. Box 941 Columbia, MD 21046-9400 Address	00, <u>Delaware Corporation</u> Nationality
and the successors, assig	gns and legal representatives of the ASSIGNEE(S))
the entire right,	title and interest for the United States and its terri	itorial possessions
an undivided _ possessions		interest for the United States and its territoria
and in all forei	gn countries;	
including all rights and to any and	to claim priority, all rights to file patent applicational improvements, inventions, and other intellectu	ons, and all other intellectual property rights, in al property which is/are found in:
(a) 🔲 U.S. paten	t application executed on even date herewith.	
(b) 🛭 the applica	ation(s) and invention disclosure(s) identified in the	ne Attachments hereto.
(c) U.S. pater	nt application executed on	
(d) U.S. provi	isional application no.:filed on	÷
(e) 🔲 U.S. appli	cation no.:filed on	
(f) Internation	nal application no filed on	
(g) 🔲 U.S. pater	nt noissued	
	ange of address to which correspondence is to be s at separately.	sent regarding patent maintenance fees is being
(h) Other: _f	he invention entitled a copy of which is attac	hed.
Each Inventor: Initial and da	ate here for acknowledgement of this page $(2/ICFDQ)$	

Assignment of Invention - Page 1 of 4 PATENT

(i) and any legal equivalent thereof in any country, including the right to claim priority and, in and to, all Letters Patent to be obtained for said invention by a new application or by the above application or any continuation, division, renewal, or substitute thereof, and as to letters patent any reissue or re-examination thereof.

ASSIGNOR(S) hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment;

ASSIGNOR(S) further covenants that ASSIGNEE(S) will, upon its request, be provided promptly with all pertinent facts and documents relating to said invention and said Letters Patent and legal equivalents as may be known and accessible to ASSIGNOR(S) and will testify as to the same in any interference, litigation or proceeding related thereto and will promptly execute and deliver to ASSIGNEE(S) or its legal representatives any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue and enforce said application, said invention and said Letters Patent and said equivalents thereof which may be necessary or desirable to carry out the purposes thereof.

IN WITNESS WHEREOF, ASSIGNOR(S) have hereunto set hand and seal this:

WARNING: The date of signing must be the same as t	he date of execution of the declaration, if item (a) was chec	ked above.
Thomas D. Stephens Name of Assignor or Name & Title of Person entitled to sign on behalf of Assignor	Signature of Assignor or Person entitled to sign on behalf of Assignor	12 <u>/14/04</u>
Place of signing of assignment City/County: State:		
contents of his/her over free will for the purp	o executed the foregoing assignment instrument oose therein expressed.	and acknowledged its
cover documen	Notary Public or Consular Officer of the Unit	ted States of America



CONSULATE GENERAL OF THE UNITED STATES OF AMERICA

Commonwealth of Australia)	
State of Victoria)	
City of Melbourne)	S
Consulate General of the	ĺ	
United States of America	ì	

I, Karen L. Ogle, Consul of the United States of America at Melbourne, Victoria, Australia, duly commissioned and qualified, do hereby certify that on this 14th day of December, 2004, before me personally appeared <u>Thomas David Stephens</u>, to me personally known or proved to me on the basis of satisfactory evidence to be the individual described in, whose name is subscribed to, and who executed the annexed instrument, and being informed by me of the contents of said instrument he duly acknowledged to me that he executed the same freely and voluntarily for the uses and purposes therein mentioned.

IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

Consul of the United States of America

PATENT REEL: 019458 FRAME: 0363

RECORDED: 06/19/2007

Title	Application Number	Filing Date
Optical Communication Systems Including Optical Amplifiers and Amplification Methods	10/962,726	October 12, 2004
		<u> </u>
omas D. Stephens		12/14/04
ne of Assignor or	Signature of Assign or Ox Person entitled to sign on behalf of Assignor	Date
ce of signing of assignment		
y/County: te:: untry::		
Before me this day of oe the person who is described in and who to utents of his/her own free will-for the purpos	,200 personally appear xecuted the foregoing assignment in e therein expressed.	red Thomas D. Stephens, to me kn astrument and acknowledged its
corer document	Notary Public or Consular Office	r of the United States of America
- '		