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U.S. DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office

## RECORDATION FORM COVER SHEET PATENTS ONLY

To the Director of the U.S. Patent and Trademark Office: Please record the attached documents or the new address(es) below.

### 1. Name of conveying party(ies)

Corvis Corporation

Additional name(s) of conveying party(ies) attached? ☐ Yes ☒ No

### 3. Nature of conveyance/Execution Date(s):

Execution Date(s) \_\_\_\_\_

- ☐ Assignment
 ☐ Merger  
☐ Security Agreement
 ☐ Change of Name  
☐ Joint Research Agreement  
☐ Government Interest Assignment  
☐ Executive Order 9424, Confirmatory License  
☒ Other Corrective Assignment, Reel/Frame 019448/0261,  
remove serial number 09/544,485

### 2. Name and address of receiving party(ies)

Name: Broadwing Corporation

Internal Address: Office of the General Counsel

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

### 4. Application or patent number(s):

☐ This document is being filed together with a new application.

A. Patent Application No.(s)

B. Patent No.(s)

7,010,229

Additional numbers attached? ☐ Yes ☒ No

### 5. Name and address to whom correspondence concerning document should be mailed:

Name: Darren E. Wolf

Internal Address: Dickie, McCarney & Chilcote, P.C.

Street Address: Two PPG Place, Suite 400

City: Pittsburgh

State: Pennsylvania Zip: 15222-5402

Phone Number: 412-392-5681

Fax Number: 412-392-5650

Email Address: dewolf@dmclaw.com

### 6. Total number of applications and patents involved: One (1)

### 7. Total fee (37 CFR 1.21(h) & 3.41) \$ 40

- ☐ Authorized to be charged by credit card  
☒ Authorized to be charged to deposit account  
☐ Enclosed  
☐ None required (government interest not affecting title)

### 8. Payment Information

a. Credit Card Last 4 Numbers \_\_\_\_\_  
Expiration Date \_\_\_\_\_

b. Deposit Account Number 50-3198

Authorized User Name Darren E. Wolf

### 9. Signature:

Darren E. Wolf  
Signature

September 20, 2007

Date

Darren E. Wolf

Name of Person Signing

Total number of pages including cover sheet, attachments, and documents: 9

Documents to be recorded (including cover sheet) should be faxed to (571) 273-0140, or mailed to:  
Mail Stop Assignment Recordation Services, Director of the USPTO, P.O.Box 1450, Alexandria, V.A. 22313-1450

CH \$40.00 603198 7010229

# Delaware

PAGE 1

*The First State*

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "CORVIS CORPORATION", FILED IN THIS OFFICE ON THE SEVENTH DAY OF OCTOBER, A.D. 2004, AT 10:24 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF AMENDMENT IS THE SEVENTH DAY OF OCTOBER, A.D. 2004, AT 4:30 O'CLOCK P.M.

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070550947



*Harriet Smith Windsor*

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 5668008

DATE: 05-11-07

PATENT

REEL: 019850 FRAME: 0429

State of Delaware  
 Secretary of State  
 Division of Corporations  
 Delivered 10:48 AM 10/07/2004  
 FILED 10:24 AM 10/07/2004  
 SRV 040725280 - 2757324 FILE

**CERTIFICATE OF AMENDMENT  
 OF  
CERTIFICATE OF INCORPORATION**

**CORVIS CORPORATION** (the "Corporation"), a corporation organized and existing under and by virtue of The General Corporation Law of the State of Delaware, as amended (the "DGCL"), DOES HEREBY CERTIFY:

**FIRST:** That the Board of Directors of the Corporation has duly adopted, and a majority of the outstanding stock entitled to vote thereon has approved resolutions proposing and declaring advisable the following amendment to the Amended and Restated Certificate of Incorporation of the Corporation.

**RESOLVED,** that the Amended and Restated Certificate of Incorporation of the Corporation be amended to add the following paragraph to Article IV of the Corporation's Amended and Restated Certificate of Incorporation:

Effective at 4:30 p.m. Eastern Standard Time on the date of filing of this Certificate of Amendment with the Delaware Secretary of State, every twenty outstanding shares of Common Stock will be combined into and automatically become one (1) outstanding share of Common Stock. The authorized shares of Common Stock of the Corporation and the par value per share shall remain as set forth in this Certificate of Incorporation. No fractional share shall be issued in connection with the foregoing stock split; all shares of Common Stock so split that are held by a stockholder will be aggregated subsequent to the foregoing split and each fractional share resulting from such aggregation of shares of Common Stock held by a stockholder shall be rounded down to the nearest whole share. In lieu of any interest in a fractional share of Common Stock to which a stockholder would otherwise be entitled as a result of the foregoing split, the Corporation shall pay a cash amount to such stockholder equal to the fair value of such fractional share as of the effective date of the foregoing split.

**SECOND:** That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Section 242(b) of the DGCL.

**THIRD:** That this Certificate of Amendment shall be effective at 4:30 p.m., Eastern Standard Time, on October 7, 2004.

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to be executed by its duly authorized officer this 6th day of October, 2004.

CORVIS CORPORATION

By   
 Name: David Mace Roberts  
 Title: Assistant Secretary

5096578 01778266

# Delaware

PAGE 1

## *The First State*

I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF OWNERSHIP, WHICH MERGES:

"BROADWING MERGER SUB CORPORATION", A DELAWARE CORPORATION, WITH AND INTO "CORVIS CORPORATION" UNDER THE NAME OF "BROADWING CORPORATION", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE SEVENTH DAY OF OCTOBER, A.D. 2004, AT 10:48 O'CLOCK A.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF OWNERSHIP IS THE SEVENTH DAY OF OCTOBER, A.D. 2004, AT 4:31 O'CLOCK P.M.



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*Harriet Smith Windsor*

Harriet Smith Windsor, Secretary of State

AUTHENTICATION: 5668007

DATE: 05-11-07

PATENT

REEL: 019850 FRAME: 0431

State of Delaware  
Secretary of State  
Division of Corporations  
Delivered 10:48 AM 10/07/2004  
FILED 10:48 AM 10/07/2004  
SRV 040725296 - 2757324 FILE

**CERTIFICATE OF OWNERSHIP AND MERGER**

**MERGING**

**BROADWING MERGER SUB CORPORATION**

**WITH AND INTO**

**CORVIS CORPORATION**

Pursuant to Section 253 of the Delaware General Corporation Law, as amended

Corvis Corporation, a Delaware corporation (the "Corporation"), which desires to merge (the "Merger") Broadwing Merger Sub Corporation, a Delaware corporation and a wholly owned subsidiary of the Corporation ("Merger Sub"), with and into the Corporation on the terms set forth below and in the Plan of Merger (as defined below), pursuant to the provisions of Section 253 of the Delaware General Corporation Law, as amended (the "DGCL"), DOES HEREBY CERTIFY AS FOLLOWS:

**FIRST:** That the Corporation owns 100% of the outstanding shares of each class of outstanding capital stock of Merger Sub.

**SECOND:** That the Corporation's board of directors, by the resolutions attached as Annex I, which were adopted on July 28, 2004 at a duly convened meeting of the Corporation's board of directors, determined to effect the plan of merger attached to such resolutions as Annex A (the "Plan of Merger").

**THIRD:** That the Corporation does hereby merge Merger Sub with and into the Corporation on the terms set forth in the Plan of Merger, with the Corporation being the surviving corporation of the Merger.

**FOURTH:** That the name of the surviving corporation in the Merger is Corvis Corporation which, upon the effectiveness of the Merger, will change its name to Broadwing Corporation.

**FIFTH:** That the Merger shall become effective at 4:31 p.m., Eastern Standard Time, on October 7, 2004.

\* \* \* \* \*

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IN WITNESS WHEREOF, the Corporation has caused this Certificate of Ownership and Merger to be executed its duly authorized officer as of this 6th day of October, 2004.

CORVIS CORPORATION

By: David M. Roberts  
Name: David Mace Roberts  
Title: Assistant Secretary

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**ANNEX I**

WHEREAS, the Corporation owns beneficially and of record 100% of the issued and outstanding capital stock of Broadwing Merger Sub Corporation, a Delaware corporation ("Merger Sub"); and

WHEREAS, the Board deems it desirable and in the best interests of the Corporation to merge (the "Merger") Merger Sub with and into the Corporation, which shall be the surviving corporation of the Merger and which, pursuant to terms of the Merger, will change its name to Broadwing Corporation;

NOW THEREFORE, BE IT RESOLVED, that, in accordance with the DGCL (including, without limitation, Section 253 of the DGCL), the Board hereby authorizes, adopts and approves in all respects the Plan of Merger attached hereto as Annex A, which provides for the merger of Merger Sub with and into the Corporation, which shall be as the surviving corporation of the Merger and which, pursuant to the terms of the Merger, will change its name to Broadwing Corporation;

BE IT FURTHER RESOLVED, that the President, any Vice President, the Secretary and the Treasurer of the Corporation (each, an "Authorized Officer") are each hereby authorized, in the name and on behalf of the Corporation, to execute any Certificate of Merger to be filed with the Office of the Delaware Secretary of State and to execute and deliver any such other certificates, instruments or documents, if any, as any of such Authorized Officers may deem necessary or appropriate to consummate the Merger;

FURTHER RESOLVED, that the Authorized Officers of the Corporation are each hereby authorized to take from time to time, in the name and on behalf of the Corporation, such actions and to execute and deliver from time to time, in the name and on behalf of the Corporation, such certificates, instruments, notices and documents as may be required or as such officer may deem necessary, advisable or proper in order to carry out the purposes and intent of the foregoing resolutions; all such acts and things done or caused to be done, and all such certificates, instruments, notices and documents, to be performed, executed and delivered in such form as the Authorized Officer performing or executing the same may approve, the performance or execution thereof by such Authorized Officer to be conclusive evidence of the approval thereof by such Authorized Officer and by this Board; and

FURTHER RESOLVED, that any and all action heretofore or hereafter taken by each Authorized Officer of the Corporation in accordance with the foregoing resolutions is hereby approved, ratified and confirmed as the act and deed of the Corporation.

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ANNEX A

**PLAN OF MERGER  
OF  
BROADWING MERGER SUB CORPORATION  
WITH AND INTO  
CORVIS CORPORATION**

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This Plan of Merger (this "Plan") sets forth the terms of the merger (the "Merger") of Broadwing Merger Sub Corporation, a Delaware corporation ("Merger Sub"), with and into Corvis Corporation, a Delaware corporation ("Parent"), pursuant to the provisions of the Delaware General Corporation Law, as amended (the "DGCL"), including, without limitation, Section 253 of the DGCL. Immediately prior to the adoption of this Plan and at all times thereafter until the Effective Time (as defined below), Parent owned and will continue to own 100% of the issued and outstanding shares of the capital stock of Merger Sub.

1. Effective Time. As used in this Plan, the term "Effective Time" shall mean 4:31 p.m., Eastern Standard Time, on October 7, 2004.
2. The Merger. At the Effective Time, Merger Sub shall merge with and into Parent and the separate corporate existence of Merger Sub shall thereupon cease. Parent shall be the surviving corporation in the Merger (sometimes referred to as the "Surviving Corporation") and shall continue to be governed by the laws of the State of Delaware, and the separate corporate existence of Parent with all its rights, privileges, immunities, powers and franchises shall continue unaffected by the Merger. The Merger shall have the effects specified in Section 259 of the DGCL.
3. Terms of the Merger. At the Effective Time, automatically by virtue of the Merger and without any action on the part of any party or other person, each share of capital stock of Merger Sub issued and outstanding immediately prior to the Effective Time shall no longer be outstanding, shall be canceled and retired without payment of any consideration therefor, and shall cease to exist.
4. Certificate of Incorporation; By-laws. The certificate of incorporation and by-laws of Parent immediately prior to the Effective Time shall be the certificate of incorporation and by-laws of the Surviving Corporation except that, as provided by the terms of the Merger, the name of the Parent shall be changed to Broadwing Corporation.
5. Board of Directors and Officers. The initial directors and officers of the Surviving Corporation shall consist of the directors and officers of Parent immediately prior to the Effective Time.

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