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FIFTH AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
A123 SYSTEMS, INC.

A123 Systems, Inc. (hereinafter called the "Corporation"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

1. The name of the corporation is A123 Systems, Inc. The original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 19, 2001 and was amended and restated on December 17, 2001. The Amended and Restated Certificate of Incorporation was further amended on July 19, 2002; amended and restated on November 25, 2002; further amended and restated on June 1, 2004; further amended on February 24, 2005; and amended and restated on January 6, 2006.

2. This Fifth Amended and Restated Certificate of Incorporation was duly adopted by unanimous written consent of the board of directors and written consent of the stockholders of the Corporation in accordance with the applicable provisions of Sections 141, 228, 242 and 245 of the General Corporation Law of the State of Delaware.

3. This Fifth Amended and Restated Certificate of Incorporation restates, integrates and amends the Fourth Amended and Restated Certificate of Incorporation and the text of the Fourth Amended and Restated Certificate of Incorporation is hereby amended and restated to read as herein set forth in full:

FIRST. The name of the Corporation is: A123 Systems, Inc.

SECOND. The address of its registered office in the State of Delaware is The Corporation Trust Center, 1209 Orange Street, in the City of Wilmington, County of New Castle. The name of its registered agent at such address is The Corporation Trust Company.

THIRD. The nature of the business or purposes to be conducted or promoted by the Corporation is as follows:

To engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is 76,338,003 shares, consisting of (i) 45,000,000 shares of Common Stock, \$.001 par value per share ("Common Stock"), and (ii) 31,338,003 shares of Preferred Stock, \$.001 par value per share, of which (A) 8,322,500 shares shall be designated "Series A Convertible Preferred Stock" (the "Series A Preferred Stock"), (B) 2,925,000 shares shall be designated "Series A-1 Convertible Preferred Stock" (the "Series A-1 Preferred Stock"), (C) 9,691,116 shares shall be designated "Series B Convertible Preferred Stock" (the "Series B

Preferred Stock”), (D) 1,499,992 shares shall be designated “Series B-1 Convertible Preferred Stock” (the “Series B-1 Preferred Stock”) and (E) 8,899,395 shares shall be designated “Series C Convertible Preferred Stock” (the “Series C Convertible Preferred Stock”).

The following is a statement of the designations and the powers, preferences and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK.

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights of the holders of any outstanding Preferred Stock.

2. Voting. The holders of the Common Stock are entitled to one vote for each share held at all meetings of stockholders (and any written actions in lieu of a meeting). There shall be no cumulative voting. The holders of Common Stock, voting as a separate class, shall be entitled to elect one (1) member of the Corporation’s Board of Directors at each meeting or pursuant to each consent of the Corporation’s stockholders for the election of directors. A vacancy in any directorship filled by the holders of Common Stock shall be filled only by vote or written consent in lieu of a meeting of the holders of the Common Stock or by any remaining director or directors elected by the holders of Common Stock pursuant to this Section A.2.

Subject to the rights of holders of any then outstanding shares of any series of Preferred Stock (as defined below), the number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by the affirmative vote of the holders of a majority of the stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law of the State of Delaware.

3. Dividends. Dividends may be declared and paid on the Common Stock from funds lawfully available therefor as and when determined by the Board of Directors and subject to any preferential dividend rights of any then outstanding Preferred Stock.

4. Liquidation. Upon the dissolution or liquidation of the Corporation, whether voluntary or involuntary, holders of Common Stock will be entitled to receive all assets of the Corporation available for distribution to its stockholders, subject to any preferential rights of any then outstanding Preferred Stock.

B. PREFERRED STOCK.

The Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series C Preferred Stock are referred to together herein as the “Preferred Stock”. The Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock and Series C Preferred Stock are sometimes referred to together herein as the “Senior Preferred Stock”). The Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations.

1. Dividends.

(a) The Corporation shall not declare, pay or set aside any dividends (other than dividends payable in shares of Common Stock) on shares of Common Stock unless the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Preferred Stock in an amount at least equal to the product of (i) the per share dividend to be declared, paid or set aside for the Common Stock, multiplied by (ii) the number of shares of Common Stock into which such share of Preferred Stock is then convertible.

(b) The Corporation shall not declare, pay or set aside any dividends on shares of any class or series of capital stock of the Corporation other than Common Stock unless the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Preferred Stock in an amount at least equal to (i) in the case of a dividend on any class or series that is convertible into Common Stock, that dividend per share of Preferred Stock as would equal the dividend payable on each share of such other class or series determined as if all such shares of such class or series had been converted into Common Stock and all shares of Preferred Stock had been converted into Common Stock on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Preferred Stock determined by dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock and multiplying such fraction by \$1.00 per share in the case of the Series A Preferred Stock, \$1.50 per share in the case of the Series A-1 Preferred Stock, \$2.078192 per share in the case of the Series B Preferred Stock, \$3.33 per share in the case of the Series B-1 Preferred Stock, and \$3.371016 per share in the case of the Series C Preferred Stock (subject in each case to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares).

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

(a) In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation (a "Liquidation Event"), the holders of shares of Senior Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Series B-1 Preferred Stock, Common Stock or any other class or series of stock ranking on liquidation junior to the Senior Preferred Stock by reason of their ownership thereof, an amount equal to the greater of (i) \$1.00 per share in the case of the Series A Preferred Stock, \$1.50 per share in the case of the Series A-1 Preferred Stock, \$2.078192 per share in the case of the Series B Preferred Stock, and \$3.371016 per share, in the case of the Series C Preferred Stock (subject in each case to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization affecting such shares), plus any dividends declared but unpaid thereon, or (ii) such amount per share as would have been payable had each share of each series of Preferred Stock that would receive a greater amount upon conversion into Common Stock than pursuant to clause (i) above (assuming for purposes of such determination that all shares of each series of Preferred Stock were issued on the date that the first share of such series was issued) converted

into Common Stock pursuant to Section 4 immediately prior to such Liquidation Event (the amounts payable pursuant to this sentence are hereinafter referred to as the "Series A Liquidation Amount," the "Series A-1 Liquidation Amount," the "Series B Liquidation Amount" and the "Series C Liquidation Amount," respectively). If upon any such Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Senior Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Senior Preferred Stock the full amount to which they shall be entitled, the holders of shares of Senior Preferred Stock and any class or series of stock ranking on liquidation on a parity with the Senior Preferred Stock shall share ratably in any distribution of the remaining assets and funds of the Corporation in proportion to the respective amounts which would otherwise be payable in respect of such shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

(b) If, after the payment of all preferential amounts required to be distributed to the holders of Senior Preferred Stock, and any other class or series of stock of the Corporation ranking on liquidation on a parity with the Senior Preferred Stock, assets and funds remain available for distribution by the Corporation, the holders of Series B-1 Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders before any payment shall be made to the holders of Common Stock or any other class or series of stock ranking on liquidation junior to the Series B-1 Preferred Stock (such Common Stock and other stock being collectively referred to as "Junior Stock") by reason of their ownership thereof, an amount equal to \$3.33 per share plus any dividends declared but unpaid thereon (subject to appropriate adjustment in the event of any stock dividend, stock split, combination, recapitalization or other similar event affecting such shares) (the "Series B-1 Liquidation Amount"). If upon any such Liquidation Event, the remaining assets of the Corporation available for distribution to its stockholders shall be insufficient to pay in full the Series B-1 Liquidation Amount, then the holders of shares of Series B-1 Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts to which such stockholders would otherwise be entitled on account of their shares of Series B-1 Preferred Stock.

(c) After the payment of all preferential amounts required to be distributed to the holders of Preferred Stock and any other class or series of stock of the Corporation ranking on liquidation on a parity with the Preferred Stock, upon a Liquidation Event, ~~any remaining assets and funds of the Corporation available for distribution shall be distributed among the holders of the then outstanding shares of Common Stock and any other class or series of stock entitled to participate in liquidation distributions with the holders of Common Stock, pro rata according to the number of shares of Common Stock held by such holders (assuming conversion into Common Stock of all such shares).~~

(d) A merger or consolidation in which the Corporation is a constituent party (except any such merger or consolidation involving the Corporation or a subsidiary in which the holders of capital stock of the Corporation immediately prior to such merger or consolidation continue to hold immediately following such merger or consolidation at least 50% by voting power of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such resulting or surviving corporation).

or the sale, exclusive license, conveyance or mortgage of all or substantially all of the assets of the Corporation shall be deemed to be a Liquidation Event for purposes of this Section 2 unless the holders of at least 66 2/3% of the then outstanding shares of Senior Preferred Stock, voting together as a single class, elect otherwise by giving written notice thereof to the Corporation at least two (2) days before the effective date of such event. If no such notice is given, such event shall be deemed to be a Liquidation Event for the purposes of the Preferred Stock. The amount to be distributed to the holders of Preferred Stock or Common Stock in connection with a transaction referred to in this Section 2(d) shall be the cash or the value of the property, rights or other securities distributed to such holders by the acquiring person, firm or other entity. The value of the property, rights or other securities shall be determined by and in the good faith discretion of the Board of Directors of the Corporation. Payment of preferential amounts required to be paid to the holders of Preferred Stock pursuant to Subsections 2(a) and 2(b) hereof, shall constitute a redemption of such Preferred Stock, and after full payment of such amounts such share of Preferred Stock shall cease to be outstanding for any purpose. The Corporation shall promptly provide to the holders of shares of Preferred Stock such information concerning the terms of such merger, consolidation or asset sale and the value of the assets of the Corporation as may reasonably be requested by the holders of Preferred Stock in order to assist them in determining whether to make such an election. If the holders of the Preferred Stock make such an election, the Corporation shall use its best efforts to amend the agreement or plan of merger or consolidation to adjust the rate at which the shares of capital stock of the Corporation are converted into or exchanged for cash, new securities or other property to give effect to such election.

3. Voting

(a) Each holder of outstanding shares of Preferred Stock shall be entitled to the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are then convertible (as adjusted from time to time pursuant to Section 4 hereof), at each meeting of stockholders of the Corporation (and written actions of stockholders in lieu of meetings) with respect to any and all matters presented to the stockholders of the Corporation for their action or consideration. Except as provided by law and the provisions of Section A.2 above and Subsections 3(b), 3(c) and 3(d) below, holders of the Preferred Stock and any other outstanding series of Preferred Stock shall vote together with the holders of Common Stock as a single class on any actions to be taken by the stockholders of the Corporation.

(b) The Corporation shall not amend, alter or repeal, by merger or otherwise, the preferences, special rights or other powers of the Series A Preferred Stock in a manner adverse to holders of the Series A Preferred Stock and not similarly adverse to other classes or series of Preferred Stock, without the written consent or affirmative vote of the holders of not less than 60% of the then outstanding shares of Series A Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class. The Corporation shall not amend, alter or repeal, by merger or otherwise, the preferences, special rights or other powers of the Series A-1 Preferred Stock in a manner adverse to holders of the Series A-1 Preferred Stock and not similarly adverse to other classes or series of Preferred Stock or increase the authorized number of shares of Series A-1 Preferred Stock, without the written consent or affirmative vote of the holders of not less than a majority of the then outstanding

shares of Series A-1 Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class. The Corporation shall not amend, alter or repeal, by merger or otherwise, the preferences, special rights or other powers of the Series B Preferred Stock in a manner adverse to holders of the Series B Preferred Stock and not similarly adverse to other classes or series of Preferred Stock or increase the authorized number of shares of Series B Preferred Stock, without the written consent or affirmative vote of the holders of not less than 66 2/3 % of the then outstanding shares of Series B Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class. The Corporation shall not amend, alter or repeal, by merger or otherwise, the preferences, special rights or other powers of the Series C Preferred Stock in a manner adverse to holders of the Series C Preferred Stock and not similarly adverse to other classes or series of Preferred Stock or increase the authorized number of shares of Series C Preferred Stock, without the written consent or affirmative vote of the holders of not less than a majority of the then outstanding shares of Series C Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class. For purposes of this Subsection 3(b) and Subsection 3(c) below, without limiting the generality of the foregoing, the authorization or issuance of any shares of capital stock with preference or priority over or on parity with the Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be, as to the right to receive either dividends or amounts distributable upon a Liquidation Event shall be deemed to affect adversely the Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, as the case may be. The Corporation shall not amend, alter or repeal, by merger or otherwise, the preferences, special rights or other powers of the Series B-1 Preferred Stock in a manner adverse to holders of the Series B-1 Preferred Stock and not similarly adverse to other classes or series of Preferred Stock or increase the authorized number of shares of Series B-1 Preferred Stock, without the written consent or affirmative vote of the holders of not less than a majority of the then outstanding shares of Series B-1 Preferred Stock, given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class. The authorization or issuance of any shares of capital stock with preference or priority over or on parity with the Series B-1 Preferred Stock as to the right to receive either dividends or amounts distributable upon a Liquidation Event shall not be deemed to affect adversely the Series B-1 Preferred Stock.

(c) In addition to any other rights provided by law, so long as at least 7,000,000 shares of Senior Preferred Stock, (such number to be proportionately adjusted in the event of any stock splits, stock dividends, recapitalizations or similar events) are outstanding, the Corporation shall not, by merger or otherwise, without the prior written consent or affirmative vote of the holders of not less than 66 2/3% of the then outstanding shares of Senior Preferred Stock, voting together as a single class:

(i) make (or permit any corporation, a majority of the voting stock of which is owned or controlled by the Corporation to make) any loan or advance to, or own any stock or other securities of, any subsidiary or other corporation, partnership, or other entity unless it is wholly owned by the Corporation, without the approval of a majority of the Board of Directors, including the approval of the three members of the Board of Directors of the Corporation elected by the holders of Series A Preferred Stock and Series A-1 Preferred Stock pursuant to Subsection 3(d) (the "Preferred Designees");

(ii) make (or permit any subsidiary to make) any loan or advance to any person, including, without limitation, any employee or director of the Corporation or any subsidiary, except advances and similar expenditures in the ordinary course of business or under the terms of an employee stock or option plan approved by a majority of the Board of Directors of the Corporation, including the approval of the Preferred Designees;

(iii) guarantee, directly or indirectly, any indebtedness or obligations except for trade accounts of any subsidiary arising in the ordinary course of business without the approval of a majority of the Board of Directors of the Corporation, including the approval of the Preferred Designees;

(iv) effect or obligate itself to effect, any merger, sale, pledge, lease, assignment, transfer or other conveyance of all or substantially all of the assets of the Corporation or any subsidiary thereof, or any consolidation or merger involving the Corporation or any subsidiary thereof, or any Liquidation Event;

(v) acquire all or substantially all of the properties, assets or stock of any other corporation or entity without the approval of a majority of the Board of Directors of the Corporation, including the approval of the Preferred Designees;

(vi) voluntarily liquidate or dissolve;

(vii) incur any indebtedness for borrowed money in excess of \$500,000 in the aggregate without the approval of a majority of the Board of Directors of the Corporation, including the approval of the Preferred Designees;

(viii) amend any provision of, or add any provision to, the Corporation's Certificate of Incorporation or By-Laws;

(ix) reclassify any shares of Common Stock of the Corporation;

(x) pay or declare any dividend or distribution on any shares of its capital stock, or apply any of its assets to the redemption, retirement, purchase or acquisition, directly or indirectly, through subsidiaries or otherwise, of any shares of its capital stock (other than pursuant to Section 6 of the Certificate of Incorporation, the repurchase by the Corporation of capital stock held by an employee, director or consultant of the Corporation upon termination of their employment or services with the Corporation at cost or pursuant to the terms of the Third Amended and Restated Right of First Refusal and Co-Sale Agreement dated on or near the filing of this Certificate of Incorporation with certain stockholders and certain purchasers of its Preferred Stock); or

(xi) increase or decrease the size of the Corporation's Board of Directors unless such increase or decrease is approved by the Board of Directors, including the Preferred Designees.

(d) The holders of Series A Preferred Stock, voting as a separate class, shall be entitled to elect two (2) members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. A

vacancy in any directorship filled by the holders of Series A Preferred Stock shall be filled only by vote or written consent in lieu of a meeting of the holders of the Series A Preferred Stock or by any remaining director or directors elected by the holders of Series A Preferred Stock pursuant to this Subsection 3(d). The rights of the holders of the Series A Preferred Stock under this Subsection 3(d) shall terminate on the first date on which there are issued and outstanding less than 500,000 shares of Series A Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares). The holders of Series A-1 Preferred Stock, voting as a separate class, shall be entitled to elect one (1) member of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. A vacancy in any directorship filled by the holders of Series A-1 Preferred Stock shall be filled only by vote or written consent in lieu of a meeting of the holders of the Series A-1 Preferred Stock or by any remaining director or directors elected by the holders of Series A-1 Preferred Stock pursuant to this Subsection 3(d). The rights of the holders of the Series A-1 Preferred Stock under this Subsection 3(d) shall terminate on the first date on which there are issued and outstanding less than 500,000 shares of Series A-1 Preferred Stock (subject to appropriate adjustment in the event of any dividend, stock split, combination or other similar recapitalization affecting such shares).

4. Optional Conversion The holders of the Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

(a) Right to Convert Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and nonassessable shares of Common Stock as is determined (i) in the case of Series A Preferred Stock by dividing \$1.00 by the Series A Conversion Price (as defined below) in effect at the time of conversion, (ii) in the case of Series A-1 Preferred Stock by dividing \$1.50 by the Series A-1 Conversion Price (as defined below) in effect at the time of conversion, (iii) in the case of Series B Preferred Stock by dividing \$2.078192 by the Series B Conversion Price (as defined below), (iv) in the case of Series B-1 Preferred Stock by dividing \$3.33 by the Series B-1 Conversion Price (as defined below) and (v) in the case of the Series C Preferred Stock by dividing \$3.371016 by the Series C Conversion Price (as defined below). The "Series A Conversion Price" shall initially be \$1.00. The "Series A-1 Conversion Price" shall initially be \$1.50. The "Series B Conversion Price" shall initially be \$2.078192. The "Series B-1 Conversion Price" shall initially be \$3.33. The "Series C Conversion Price" shall initially be \$3.371016. Such initial Series A, Series A-1, Series B, Series B-1 and Series C Conversion Prices, and the rate at which shares of Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below.

In the event of a notice of redemption of any shares of Preferred Stock pursuant to Section 6 hereof, the Conversion Rights of the shares designated for redemption shall terminate at the close of business on the full day preceding the date fixed for redemption, unless the redemption price is not paid when due, in which case the Conversion Rights for such shares shall continue until such price is paid in full. In the event of a Liquidation Event, the Conversion Rights shall terminate at the close of business on the second full day preceding the date fixed for the payment of any amounts distributable on liquidation to the holders of Preferred Stock.

(b) Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then applicable Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price and Series C Conversion Price, as the case may be.

(c) Mechanics of Conversion

(i) In order for a holder of Preferred Stock to convert shares of Preferred Stock into shares of Common Stock, such holder shall surrender the certificate or certificates for such shares of Preferred Stock, at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent), together with written notice that such holder elects to convert all or any number of the shares of Preferred Stock represented by such certificate or certificates. Such notice shall state such holder's name or the names of the nominees in which such holder wishes the certificate or certificates for shares of Common Stock to be issued. If required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his or its attorney duly authorized in writing. The date of receipt of such certificates and notice by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) shall be the conversion date ("Conversion Date"). The Corporation shall, as soon as practicable after the Conversion Date, issue and deliver at such office to such holder of Preferred Stock, or to his or its nominees, a certificate or certificates for the number of shares of Common Stock to which such holder shall be entitled, together with cash in lieu of any fraction of a share. The person entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder of such shares of Common Stock as of the Conversion Date.

(ii) The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock. Before taking any action which would cause an adjustment reducing the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its legal counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of Common Stock at such adjusted Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price.

(iii) Upon any such conversion, no adjustment to the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price shall be made for any declared but unpaid dividends on the Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock,

Series B-1 Preferred Stock or Series C Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

(iv) All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares, including the rights, if any, to receive notices and to vote as a holder of Preferred Stock, shall immediately cease and terminate on the Conversion Date, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor and payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and shall not be reissued, and the Corporation (without the need for stockholder action) may from time to time take such appropriate action as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

(v) The Corporation shall pay any and all issue and other taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

(d) Adjustments to Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price and Series C Conversion Price for Diluting Issues:

(i) Special Definitions. For purposes of this Subsection 4(d), the following definitions shall apply:

(A) "Option" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(B) "Original Issue Date" shall mean the date on which a share of Series C Preferred Stock was first issued.

(C) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock.

(D) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4(d)(iii) below, deemed to be issued) by the Corporation after the Original Issue Date other than:

(I) shares of Common Stock issued or issuable upon conversion or exchange of any Convertible Securities or exercise of any Options outstanding on the Original Issue Date;

- (II) shares of Common Stock issued or issuable as a dividend or distribution on Preferred Stock;
- (III) shares of Common Stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4(e) or 4(f) below;
- (IV) up to an aggregate of 6,200,000 shares of Common Stock (or Options with respect thereto) (or such other number as may be approved by a majority of the Board of Directors, including the Preferred Designees) issued or issuable to employees or directors of, or consultants to, the Corporation pursuant to the Corporation's 2001 Stock Incentive Plan or similar plans or arrangements approved, in each case, by a majority of the Board of Directors of the Corporation, including the Preferred Designees (which such number of shares shall include all such shares and Options issued or issuable pursuant to such plans, prior and subsequent to the Filing Date and provided that any Options for such shares that expire or terminate unexercised or any restricted stock repurchased by the Corporation shall not be counted toward such maximum number unless and until such shares are regranted as new stock grants (or as new Options) pursuant to the terms of any such plan, agreement or arrangement);
- (V) shares of Common Stock (or Options with respect thereto) issued or issuable to landlords, lenders or equipment lessors as approved by the Board of Directors of the Corporation, including the Preferred Designees;
- (VI) shares of capital stock issued or issuable to the Massachusetts Institute of Technology ("M.I.T.") as a result of the anti-dilution provisions of the Exclusive License Agreement between M.I.T. and the Corporation dated December 4, 2001 (the "M.I.T. Shares");
- (VII) shares of Series A Preferred Stock issued or issuable to Comerica Bank upon exercise of that certain warrant issued by the Corporation on July 19, 2002; or

(VIII) shares of Series B Preferred Stock issued or issuable to Heller Financial Leasing, Inc. upon exercise of a warrant issued by the Corporation to Heller Financial Leasing, Inc.

(ii) No Adjustment of Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price. No adjustment in the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, pursuant to this Subsection 4(d), shall be made as a result of any issuance or deemed issuance of Additional Shares of Common Stock if: (a) the consideration per share (determined pursuant to Subsection 4(d)(v)) for such Additional Shares of Common Stock issued or deemed to be issued by the Corporation is equal to or greater than the applicable Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, in effect immediately prior to such issuance or deemed issuance of such Additional Shares, or (b) prior to such issuance or deemed issuance, the Corporation receives, as applicable, the written consent from the holders of (i) at least 60% of the then outstanding shares of Series A Preferred Stock with respect to an issuance or deemed issuance of Additional Shares of Common Stock that otherwise would adjust the Series A Conversion Price, (ii) a majority of the then outstanding shares of Series A-1 Preferred Stock with respect to an issuance or deemed issuance that otherwise would adjust the Series A-1 Conversion Price, (iii) at least 66 2/3 % of the then outstanding shares of Series B Preferred Stock with respect to an issuance or deemed issuance of Additional Shares of Common Stock that otherwise would adjust the Series B Conversion Price, or (iv) at least a majority of the then outstanding shares of Series C Preferred Stock with respect to an issuance or deemed issuance of Additional Shares of Common Stock that otherwise would adjust the Series C Conversion Price, in each case agreeing that no such adjustment shall be made as the result of such issuance or deemed issuance of Additional Shares of Common Stock.

(iii) Issue of Securities Deemed Issue of Additional Shares of Common Stock. If the Corporation at any time or from time to time after the Original Issue Date shall issue any Options (excluding Options covered by Subsection 4(d)(i)(D)(I), IV and (V) above) or Convertible Securities (excluding Convertible Securities covered by subsection 4(d)(i)(D)(I) above) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto without regard to any vesting or similar limitation or any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that Additional Shares of Common Stock shall not be deemed to have been issued unless the consideration per share (determined pursuant to Subsection 4(d)(v) hereof) of such Additional Shares of Common Stock would be less than the applicable Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price in effect on the date of and immediately prior to such issue, or such record date, as the case may be, and provided further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(A) No further adjustment in the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock upon the exercise of such Options or conversion or exchange of such Convertible Securities;

(B) If such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, upon the exercise, conversion or exchange thereof, the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;

(C) Upon the expiration or termination of any unexercised Option, the affected Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price shall be readjusted to the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, that would be in effect had such Option never been issued, and the Additional Shares of Common Stock deemed issued as the result of the original issue of such Option shall not be deemed issued for the purposes of any subsequent adjustment of the affected Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price;

(D) In the event of any change in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security, including, but not limited to, a change resulting from the anti-dilution provisions thereof, the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price then in effect shall forthwith be readjusted to such Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, as would have obtained had the adjustment which was made upon the issuance of such Option or Convertible Security not exercised or converted prior to such change been made upon the basis of such change; and

(E) No readjustment pursuant to clause (B), (C) or (D) above shall have the effect of increasing the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price to an amount which exceeds the lower of (i) the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, on the original adjustment date, or (ii) the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, that would have resulted from any issuances of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

In the event the Corporation, after the Original Issue Date, amends the terms of any such Options or Convertible Securities (whether such Options or Convertible Securities were outstanding on the Original Issue Date or were issued after the Original Issue Date), then such

Options or Convertible Securities, as so amended, shall be deemed to have been issued after the Original Issue Date and the provisions of this Subsection 4(d)(iii) shall apply.

(iv) Adjustment of Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price and Series C Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4(d)(iii), but excluding shares issued as a stock split or combination as provided in Subsection 4(e) or upon a dividend or distribution as provided in Subsection 4(f)), without consideration or for a consideration per share less than the applicable ~~Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price~~ in effect immediately prior to such issue, then and in such event, such Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as applicable, shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, by a fraction, (A) the numerator of which shall be (1) the number of shares of Common Stock outstanding immediately prior to such issue (calculated assuming conversion of all issued and outstanding shares of Preferred Stock and the exercise, exchange or conversion of all then outstanding options, warrants or subscription rights) plus (2) the number of shares of Common Stock which the aggregate consideration received or to be received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at such then existing Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be; and (B) the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue (calculated assuming conversion of all issued and outstanding shares of Preferred Stock and the exercise, exchange or conversion of all then outstanding options, warrants or subscription rights) plus the total number of such Additional Shares of Common Stock so issued; provided that, the number of shares of Common Stock deemed issuable upon exercise or conversion of such outstanding Options and Convertible Securities shall not give effect to any adjustments to the conversion price or conversion rate of such Options or Convertible Securities resulting from the issuance of Additional Shares of Common Stock that is the subject of this calculation.

(v) Determination of Consideration For purposes of this Subsection 4(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

- (A) Cash and Property. Such consideration shall:
- (I) insofar as it consists of cash, be computed at the aggregate of cash received by the Corporation, excluding amounts paid or payable for accrued interest;
 - (II) insofar as it consists of property other than cash, be computed at the fair market value thereof at the

time of such issue, as determined in good faith by the Board of Directors; and

- (III) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (I) and (II) above, as determined in good faith by the Board of Directors.

(B) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4(d)(iii), relating to Options and Convertible Securities, shall be determined by dividing:

- (I) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any vesting or similar limitation or any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by
- (II) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any vesting or similar limitation or any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(vi) Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock which are comprised of shares of the same series or class of Preferred Stock, and such issuance dates occur within a period of no more than 120 days, then, upon the final such issuance, the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price or Series C Conversion Price, as the case may be, shall be adjusted to give effect to all such issuances as if they occurred on the date of the final such issuance (and without giving effect to any adjustments as a result of such prior issuances within such period).

(e) Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Original Issue Date effect a subdivision of the outstanding Common Stock, the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price then in effect immediately before that subdivision shall be proportionately decreased. If the Corporation shall at any time or from time to time after the Original Issue Date combine the outstanding shares of Common Stock, the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price then in effect immediately before the combination shall be proportionately increased. Any adjustment under this paragraph shall become effective at the close of business on the date the subdivision or combination becomes effective.

(f) Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in additional shares of Common Stock, then and in each such event the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price and Series C Conversion Price then in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Series A Conversion Price, the Series A-1 Conversion Price, the Series B Conversion Price, the Series B-1 Conversion Price or the Series C Conversion Price, as the case may be, then in effect by a fraction:

(i) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date (calculated assuming conversion of issued and outstanding shares of Preferred Stock and the exercise, exchange or conversion of all then outstanding options, warrants or subscription rights), and

(ii) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date (calculated assuming conversion of issued and outstanding shares of Preferred Stock and the exercise, exchange or conversion of all then outstanding options, warrants or subscription rights) plus the number of shares of Common Stock issuable in payment of such dividend or distribution; provided, however, if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, the Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter the Conversion Price shall be adjusted pursuant to this paragraph as of the time of actual payment of such dividends or distributions; and provided further, however, that no such adjustment shall be made if the holders of Preferred Stock simultaneously receive (i) a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event or (ii) a dividend or other distribution of shares of Preferred Stock which are convertible, as of the date of such event, into such number of shares of Common Stock as is equal to the number of additional

shares of Common Stock being issued with respect to each share of Common Stock in such dividend or distribution.

(g) Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation other than shares of Common Stock, then and in each such event provision shall be made so that the holders of Preferred Stock shall receive upon conversion thereof in addition to the number of shares of Common Stock receivable thereupon, the amount of securities of the Corporation that they would have received had the Preferred Stock been converted into Common Stock on the date of such event and had they thereafter, during the period from the date of such event to and including the conversion date, retained such securities receivable by them as aforesaid during such period, giving application to all adjustments called for during such period under this paragraph with respect to the rights of the holders of the Preferred Stock; and provided further, however, that no such adjustment shall be made if the holders of Preferred Stock simultaneously receive a dividend or other distribution of such securities in an amount equal to the amount of such securities as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

(h) Adjustment for Reclassification, Exchange, or Substitution. If at any time or from time to time after the Original Issue Date the Common Stock issuable upon the conversion of the Preferred Stock shall be changed into the same or a different number of shares of any class or classes of stock, whether by capital reorganization, reclassification, or otherwise (other than a subdivision or combination of shares or stock dividend provided for above, or a reorganization, merger, consolidation, or sale of assets provided for below), then and in each such event the holder of each such share of Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable, upon such reorganization, reclassification, or other change, by holders of the number of shares of Common Stock into which such shares of Preferred Stock might have been converted immediately prior to such reorganization, reclassification, or change, all subject to further adjustment as provided herein.

(i) Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2(c), if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by paragraphs (c), (f) (g) or (h) of this Section 4), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall be convertible into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to

changes in and other adjustments of the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price and Series C Conversion Price) shall thereafter be applicable, as nearly equivalent as reasonably may be determined, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

(j) No Impairment. The Corporation will not, by amendment of its Certificate of Incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation, but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of the Preferred Stock against impairment.

(k) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price pursuant to this Section 4, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock or Series C Preferred Stock, as the case may be, a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a certificate setting forth (i) such adjustments and readjustments, (ii) the Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price, as the case may be, then in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which then would be received upon the conversion of each series of Preferred Stock.

(l) Notice of Record Date. In the event:

(i) that the Corporation declares a dividend (or any other distribution) on its Common Stock payable in Common Stock or other securities of the Corporation;

(ii) that the Corporation subdivides or combines its outstanding shares of Common Stock;

(iii) of any reclassification of the Common Stock of the Corporation (other than a subdivision or combination of its outstanding shares of Common Stock or a stock dividend or stock distribution thereon), or of any consolidation or merger of the Corporation into or with another corporation, or of the sale of all or substantially all of the assets of the Corporation; or

(iv) of a Liquidation Event; then the Corporation shall use reasonable efforts to cause to be filed at its principal office or at the office of the transfer agent of the Preferred Stock, and shall cause to be mailed to the holders of the Preferred Stock at their last

addresses as shown on the records of the Corporation or such transfer agent, at least ten days prior to the date specified in (A) below or twenty days before the date specified in (B) below, a notice stating

(A) the record date of such dividend, distribution, subdivision or combination, or, if a record is not to be taken, the date as of which the holders of Common Stock of record to be entitled to such dividend, distribution, subdivision or combination are to be determined, or

(B) the date on which such reclassification, consolidation, merger, sale or Liquidation Event is expected to become effective, and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange their shares of Common Stock for securities or other property deliverable upon such reclassification, consolidation, merger, sale or Liquidation Event; provided, however, that the Corporation's failure to provide any notice required under this Section 4(l) after using reasonable efforts shall not be deemed a default, breach or violation of this Section 4(l).

5. Mandatory Conversion

(a) Upon (i) the closing of the sale of shares of Common Stock, at a price to the public of at least \$5.00 per share (subject to appropriate adjustment for stock splits, stock dividends, combinations, recapitalizations and other similar events affecting such shares), in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least \$40,000,000 of proceeds (after deducting underwriter discounts and commissions) to the Corporation or (ii) a vote or written consent of the holders of 66 2/3% of the then outstanding shares of Senior Preferred Stock, voting together as a single class (each, a "Mandatory Conversion Date"), (A) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective Series A Conversion Price, Series A-1 Conversion Price, Series B Conversion Price, Series B-1 Conversion Price or Series C Conversion Price, as the case may be, and (B) the number of authorized shares of Preferred Stock shall be automatically reduced by the number of shares of Preferred Stock that had been designated as Preferred Stock and all provisions for the Preferred Stock and all references to the Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock, Series B-1 Preferred Stock and Series C Preferred Stock shall be deleted and shall be of no further force or effect.

(b) All holders of record of shares of Preferred Stock shall be given written notice of the Mandatory Conversion Date and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be given in advance of the occurrence of the Mandatory Conversion Date. Such notice shall be sent by first class or registered mail, postage prepaid, to each record holder of Preferred Stock at such holder's address last shown on the records of the transfer agent for the Preferred Stock (or the records of the Corporation, if it serves as its own transfer agent). Upon receipt of such notice, each holder of shares of Preferred Stock shall surrender his or its certificate or certificates for all such shares to the Corporation at the place designated in such notice, and shall thereafter receive certificates for the number of shares of Common Stock to which such holder is entitled pursuant to this Section 5. On the Mandatory Conversion Date, all rights with respect to the Preferred

Stock so converted, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock) will terminate, except only the rights of the holders thereof, upon surrender of their certificate or certificates therefor, to receive certificates for the number of shares of Common Stock into which such Preferred Stock has been converted, and payment of any declared but unpaid dividends thereon. If so required by the Corporation, certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his or its attorney duly authorized in writing. As soon as practicable after the Mandatory Conversion Date and the surrender of the certificate or certificates for Preferred Stock, the Corporation shall cause to be issued and delivered to such holder, or on his or its written order, a certificate or certificates for the number of full shares of Common Stock issuable on such conversion in accordance with the provisions hereof and cash as provided in Subsection 4(b) in respect of any fraction of a share of Common Stock otherwise issuable upon such conversion.

(c) All certificates evidencing shares of Preferred Stock which are required to be surrendered for conversion in accordance with the provisions hereof shall, from and after the Mandatory Conversion Date, be deemed to have been retired and cancelled and the shares of Preferred Stock represented thereby converted into Common Stock for all purposes, notwithstanding the failure of the holder or holders thereof to surrender such certificates on or prior to such date. Such converted Preferred Stock may not be reissued, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. Redemption

(a) Mandatory Redemption; Three Installments. Shares of Senior Preferred Stock shall be redeemed by the Corporation at a price equal to (i) \$1.00 per share with respect to the Series A Preferred Stock plus all declared but unpaid dividends thereon (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization affecting such Series A Preferred Stock) (the "Series A Redemption Price"), (ii) \$1.50 per share with respect to the Series A-1 Preferred Stock plus all declared but unpaid dividends thereon (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization affecting such Series A-1 Preferred Stock) (the "Series A-1 Redemption Price"), (iii) \$2.078192 per share with respect to the Series B Preferred Stock plus all declared but unpaid dividends thereon (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization affecting such Series B Preferred Stock) (the "Series B Redemption Price") and (iv) \$3.371016 per share with respect to the Series C Preferred Stock plus all declared but unpaid dividends thereon (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization affecting such Series C Preferred Stock) (the "Series C Redemption Price"), in three annual installments commencing 60 days after receipt by the Corporation at any time on or after February 1, 2011 from the holders of at least sixty-six and two-thirds percent (66 2/3%) of the then outstanding shares of Senior Preferred Stock, voting together as a single class, of written notice requesting redemption of all shares of Senior Preferred Stock (the date of each such installment being referred to as a "Redemption Date"). The Corporation shall redeem one-third of each redeeming holder's shares of Series A Preferred Stock, one-third of each redeeming

holder's shares of Series A-1 Preferred Stock, one-third of each redeeming holder's shares of Series B Preferred Stock and one-third of each redeeming holder's shares of Series C Preferred Stock on the first Redemption Date, 50% of each redeeming holder's shares of Series A Preferred Stock, 50% of each redeeming holder's shares of Series A-1 Preferred Stock, 50% of each redeeming holder's shares of Series B Preferred Stock and 50% of each redeeming holder's shares of Series C Preferred Stock on the second Redemption Date, and the remainder of each redeeming holder's shares of Senior Preferred Stock on the third Redemption Date. If the Corporation does not have sufficient funds legally available to redeem all of the shares of Senior Preferred Stock required to be redeemed on any Redemption Date, the Corporation shall redeem a pro rata portion of each holder's shares of Senior Preferred Stock out of funds legally available therefor, and holders of Senior Preferred Stock shall share ratably in such redemption, in each case, in proportion to the respective amounts which would otherwise be payable in respect of shares to be redeemed from such holders; the Corporation shall redeem the remaining shares to have been redeemed as soon as practicable after the Corporation has funds legally available therefor.

(b) Redemption Notice. Written notice of the mandatory redemption (the "Redemption Notice") shall be mailed, postage prepaid, to each holder of record of Senior Preferred Stock, at its post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the Delaware General Corporation Law, not less than 30 days prior to each Redemption Date. Each Redemption Notice shall state:

- (I) the number of shares of Senior Preferred Stock held by the holder that the Corporation shall redeem on the Redemption Date specified in the Redemption Notice;
- (II) the Redemption Date and the Series A Redemption Price, Series A-1 Redemption Price, Series B Redemption Price or Series C Redemption Price, as the case may be;
- (III) the date upon which the holder's right to convert such shares terminates (as determined in accordance with Section 4(a)); and
- (IV) that the holder is to surrender to the Corporation, in the manner and at the place designated, his certificate or certificates representing the shares of Senior Preferred Stock to be redeemed.

(c) Surrender of Certificates; Payment. On or before the applicable Redemption Date, each holder of shares of Senior Preferred Stock to be redeemed on such Redemption Date, unless such holder has exercised his right to convert such shares as provided in Section 4 hereof, shall surrender the certificate or certificates representing such shares to the Corporation, in the manner and at the place designated in the Redemption Notice, and thereupon

the Series A Redemption Price, Series A-1 Redemption Price, Series B Redemption Price or Series C Redemption Price, as the case may be, for such shares shall be payable to the order of the person whose name appears on such certificate or certificates as the owner thereof, and each surrendered certificate shall be canceled and retired. In the event less than all of the shares of Senior Preferred Stock represented by a certificate are redeemed, a new certificate representing the unredeemed shares of Senior Preferred Stock shall promptly be issued.

(d) Rights Subsequent to Redemption If the Redemption Notice shall have been duly given, and if on the applicable Redemption Date the applicable Redemption Price payable upon redemption of the shares of Senior Preferred Stock to be redeemed on such Redemption Date is paid or tendered for payment, then notwithstanding that the certificates evidencing any of the shares of Senior Preferred Stock so called for redemption shall not have been surrendered, dividends with respect to such shares of Senior Preferred Stock shall cease to accrue after such Redemption Date and all rights with respect to such shares shall forthwith after the Redemption Date terminate, except only the right of the holders to receive the applicable Redemption Price without interest upon surrender of their certificate or certificates therefor.

(e) Any shares of Senior Preferred Stock redeemed pursuant to this Section 6 will be cancelled and will not under any circumstances be reissued, sold or transferred and the Corporation may from time to time take such appropriate action as may be necessary to reduce the authorized Preferred Stock accordingly.

7. Waiver. Any of the rights of the holders of Series A Preferred Stock set forth herein may be waived by the affirmative consent or vote of the holders of at least 60% of the shares of Series A Preferred Stock then outstanding. Any of the rights of the holders of Series A-1 Preferred Stock set forth herein may be waived by the affirmative consent or vote of the holders of a majority of the shares of Series A-1 Preferred Stock then outstanding. Any of the rights of the holders of Series B Preferred Stock set forth herein may be waived by the affirmative consent of the holders of at least 66 2/3 % of the shares of Series B Preferred Stock then outstanding. Any of the rights of the holders of Series B-1 Preferred Stock set forth herein may be waived by the affirmative consent of the holders of at least a majority of the shares of Series B-1 Preferred Stock then outstanding. Any of the rights of the holders of Series C Preferred Stock set forth herein may be waived by the affirmative consent of the holders of at least a majority of the shares of Series C Preferred Stock then outstanding.

8. Corporate Opportunities. The Corporation renounces any interest or expectancy of the Corporation in, or in being offered an opportunity to participate in, any Excluded Opportunity. An "Excluded Opportunity" is any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee of the Corporation or any of its subsidiaries, or (ii) any holder of Senior Preferred Stock or any partner, member, director, stockholder, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, "Covered Persons"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation.

FIFTH. In furtherance of and not in limitation of powers conferred by statute, it is further provided:

1. Election of directors need not be by written ballot.
2. The Board of Directors is expressly authorized to adopt, amend or repeal the By-Laws of the Corporation.

SIXTH. Except to the extent that the General Corporation Law of the State of Delaware prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty, no director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability. No amendment to or repeal of this provision shall apply to or have any effect on the liability or alleged liability of any director of the Corporation for or with respect to any acts or omissions of such director occurring prior to such amendment.

SEVENTH. 1. Actions, Suits and Proceedings Other than by or in the Right of the Corporation. The Corporation shall indemnify each person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Corporation), by reason of the fact that he is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to hereafter as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe his conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which he reasonably believed to be in, or not opposed to, the best interests of the Corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that his conduct was unlawful. Notwithstanding anything to the contrary in this Article, except as set forth in Section 7 below, the Corporation shall not indemnify an Indemnitee seeking indemnification in connection with a proceeding (or part thereof) initiated by the Indemnitee unless the initiation thereof was approved by the Board of Directors of the Corporation. Notwithstanding anything to the contrary in this Article, the Corporation shall not indemnify an Indemnitee to the extent such Indemnitee is reimbursed from the proceeds of insurance, and in the event the Corporation makes any indemnification payments to an Indemnitee and such Indemnitee is subsequently reimbursed from the proceeds of insurance, such Indemnitee shall promptly refund such indemnification payments to the Corporation to the extent of such insurance reimbursement.

2. Actions or Suits by or in the Right of the Corporation The Corporation shall indemnify any Indemnitee who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Corporation to procure a judgment in its favor by reason of the fact that he is or was, or has agreed to become, a director or officer of the Corporation, or is or was serving, or has agreed to serve, at the request of the Corporation, as a director, officer or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with such action, suit or proceeding and any appeal therefrom, if he acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the best interests of the Corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Corporation unless and only to the extent that the Court of Chancery of Delaware shall determine upon application that, despite the adjudication of such liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses (including attorneys' fees) which the Court of Chancery of Delaware shall deem proper.

3. Indemnification for Expenses of Successful Party Notwithstanding the other provisions of this Article, to the extent that an Indemnitee has been successful, on the merits or otherwise, in defense of any action, suit or proceeding referred to in Sections 1 and 2 of this Article, or in defense of any claim, issue or matter therein, or on appeal from any such action, suit or proceeding, he shall be indemnified against all expenses (including attorneys' fees) actually and reasonably incurred by him or on his behalf in connection therewith. Without limiting the foregoing, if any action, suit or proceeding is disposed of, on the merits or otherwise (including a disposition without prejudice), without (i) the disposition being adverse to the Indemnitee, (ii) an adjudication that the Indemnitee was liable to the Corporation, (iii) a plea of guilty or nolo contendere by the Indemnitee, (iv) an adjudication that the Indemnitee did not act in good faith and in a manner he reasonably believed to be in or not opposed to the best interests of the Corporation, and (v) with respect to any criminal proceeding, an adjudication that the Indemnitee had reasonable cause to believe his conduct was unlawful, the Indemnitee shall be considered for the purposes hereof to have been wholly successful with respect thereto.

4. Notification and Defense of Claim As a condition precedent to his right to be indemnified, the Indemnitee must notify the Corporation in writing as soon as practicable of any action, suit, proceeding or investigation involving him for which indemnity will or could be sought. With respect to any action, suit, proceeding or investigation of which the Corporation is so notified, the Corporation will be entitled to participate therein at its own expense and/or to assume the defense thereof at its own expense, with legal counsel reasonably acceptable to the Indemnitee. After notice from the Corporation to the Indemnitee of its election so to assume such defense, the Corporation shall not be liable to the Indemnitee for any legal or other expenses subsequently incurred by the Indemnitee in connection with such claim, other than as provided below in this Section 4. The Indemnitee shall have the right to employ his own counsel in connection with such claim, but the fees and expenses of such counsel incurred after notice

from the Corporation of its assumption of the defense thereof shall be at the expense of the Indemnatee unless (i) the employment of counsel by the Indemnatee has been authorized by the Corporation, (ii) counsel to the Indemnatee shall have reasonably concluded that there may be a conflict of interest or position on any significant issue between the Corporation and the Indemnatee in the conduct of the defense of such action or (iii) the Corporation shall not in fact have employed counsel to assume the defense of such action, in each of which cases the fees and expenses of counsel for the Indemnatee shall be at the expense of the Corporation, except as otherwise expressly provided by this Article. The Corporation shall not be entitled, without the consent of the Indemnatee, to assume the defense of any claim brought by or in the right of the Corporation or as to which counsel for the Indemnatee shall have reasonably made the conclusion provided for in clause (ii) above.

5. Advance of Expenses. Subject to the provisions of Section 6 below, in the event that the Corporation does not assume the defense pursuant to Section 4 of this Article of any action, suit, proceeding or investigation of which the Corporation receives notice under this Article, any expenses (including attorneys' fees) incurred by an Indemnatee in defending a civil or criminal action, suit, proceeding or investigation or any appeal therefrom shall be paid by the Corporation in advance of the final disposition of such matter; provided, however, that the payment of such expenses incurred by an Indemnatee in advance of the final disposition of such matter shall be made only upon receipt of an undertaking by or on behalf of the Indemnatee to repay all amounts so advanced in the event that it shall ultimately be determined that the Indemnatee is not entitled to be indemnified by the Corporation as authorized in this Article. Such undertaking shall be accepted without reference to the financial ability of the Indemnatee to make such repayment.

6. Procedure for Indemnification. In order to obtain indemnification or advancement of expenses pursuant to Section 1, 2, 3 or 5 of this Article, the Indemnatee shall submit to the Corporation a written request, including in such request such documentation and information as is reasonably available to the Indemnatee and is reasonably necessary to determine whether and to what extent the Indemnatee is entitled to indemnification or advancement of expenses. Any such indemnification or advancement of expenses shall be made promptly, and in any event within 60 days after receipt by the Corporation of the written request of the Indemnatee, unless with respect to requests under Section 1, 2 or 5 the Corporation determines within such 60-day period that the Indemnatee did not meet the applicable standard of conduct set forth in Section 1 or 2, as the case may be. Such determination shall be made in each instance by (a) a majority vote of the directors of the Corporation consisting of persons who are not at that time parties to the action, suit or proceeding in question ("disinterested directors"), whether or not a quorum, (b) a majority vote of a quorum of the outstanding shares of stock of all classes entitled to vote for directors, voting as a single class, which quorum shall consist of stockholders who are not at that time parties to the action, suit or proceeding in question, (c) independent legal counsel (who may, to the extent permitted by law, be regular legal counsel to the Corporation), or (d) a court of competent jurisdiction.

7. Remedies. The right to indemnification or advances as granted by this Article shall be enforceable by the Indemnatee in any court of competent jurisdiction if the Corporation denies such request, in whole or in part, or if no disposition thereof is made within the 60-day

period referred to above in Section 6. Unless otherwise required by law, the burden of proving that the Indemnitee is not entitled to indemnification or advancement of expenses under this Article shall be on the Corporation. Neither the failure of the Corporation to have made a determination prior to the commencement of such action that indemnification is proper in the circumstances because the Indemnitee has met the applicable standard of conduct, nor an actual determination by the Corporation pursuant to Section 6 that the Indemnitee has not met such applicable standard of conduct, shall be a defense to the action or create a presumption that the Indemnitee has not met the applicable standard of conduct. The Indemnitee's expenses (including attorneys' fees) incurred in connection with successfully establishing his right to indemnification, in whole or in part, in any such proceeding shall also be indemnified by the Corporation.

8. Subsequent Amendment. No amendment, termination or repeal of this Article or of the relevant provisions of the General Corporation Law of the State of Delaware or any other applicable laws shall affect or diminish in any way the rights of any Indemnitee to indemnification under the provisions hereof with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the final adoption of such amendment, termination or repeal.

9. Other Rights. The indemnification and advancement of expenses provided by this Article shall not be deemed exclusive of any other rights to which an Indemnitee seeking indemnification or advancement of expenses may be entitled under any law (common or statutory), agreement or vote of stockholders or disinterested directors or otherwise, both as to action in his official capacity and as to action in any other capacity while holding office for the Corporation, and shall continue as to an Indemnitee who has ceased to be a director or officer, and shall inure to the benefit of the estate, heirs, executors and administrators of the Indemnitee. Nothing contained in this Article shall be deemed to prohibit, and the Corporation is specifically authorized to enter into, agreements with officers and directors providing indemnification rights and procedures different from those set forth in this Article. In addition, the Corporation may, to the extent authorized from time to time by its Board of Directors, grant indemnification rights to other employees or agents of the Corporation or other persons serving the Corporation and such rights may be equivalent to, or greater or less than, those set forth in this Article.

10. Partial Indemnification. If an Indemnitee is entitled under any provision of this Article to indemnification by the Corporation for some or a portion of the expenses (including attorneys' fees), judgments, fines or amounts paid in settlement actually and reasonably incurred by him or on his behalf in connection with any action, suit, proceeding or investigation and any appeal therefrom but not, however, for the total amount thereof, the Corporation shall nevertheless indemnify the Indemnitee for the portion of such expenses (including attorneys' fees), judgments, fines or amounts paid in settlement to which the Indemnitee is entitled.

11. Insurance. The Corporation may purchase and maintain insurance, at its expense, to protect itself and any director, officer, employee or agent of the Corporation or another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) against any expense, liability or loss incurred by him in any such capacity, or arising out of his status as such, whether or not the Corporation would have the power to indemnify such

person against such expense, liability or loss under the General Corporation Law of the State of Delaware.

12. Merger or Consolidation. If the Corporation is merged into or consolidated with another corporation and the Corporation is not the surviving corporation, the surviving corporation shall assume the obligations of the Corporation under this Article with respect to any action, suit, proceeding or investigation arising out of or relating to any actions, transactions or facts occurring prior to the date of such merger or consolidation.

13. Savings Clause. If this Article or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Corporation shall nevertheless indemnify each Indemnitee as to any expenses (including attorneys' fees), judgments, fines and amounts paid in settlement in connection with any action, suit, proceeding or investigation, whether civil, criminal or administrative, including an action by or in the right of the Corporation, to the fullest extent permitted by any applicable portion of this Article that shall not have been invalidated and to the fullest extent permitted by applicable law.

14. Definitions. Terms used herein and defined in Section 145(h) and Section 145(i) of the General Corporation Law of the State of Delaware shall have the respective meanings assigned to such terms in such Section 145(h) and Section 145(i).

15. Subsequent Legislation. If the General Corporation Law of the State of Delaware is amended after adoption of this Article to expand further the indemnification permitted to Indemnitees, then the Corporation shall indemnify such persons to the fullest extent permitted by the General Corporation Law of the State of Delaware, as so amended.

EIGHTH. The Corporation reserves the right to amend, alter, change or repeal any provision contained in this Fifth Amended and Restated Certificate of Incorporation, in the manner now or hereafter prescribed by statute and pursuant to this Fifth Amended and Restated Certificate of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

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IN WITNESS WHEREOF, the Corporation has caused this Fifth Amended and Restated Certificate of Incorporation to be signed by its President this 27th day of January, 2006.

A123 SYSTEMS, INC.

By: /s/ David Vieau
David Vieau
President and Chief Executive Officer