
**AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION**

of

**TRIACTIVE TECHNOLOGIES, INC.
a Delaware Corporation**

**(Pursuant to Sections 228, 242 and 245 of the
General Corporation Law of the State of Delaware)**

TriActive Technologies, Inc. (the "Corporation"), a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "General Corporation Law").

DOES HEREBY CERTIFY:

FIRST: That the Corporation was originally incorporated pursuant to the General Corporation Law on January 1, 1999 under the name TriActive Technologies, Inc.

SECOND: That the Amended and Restated Certificate of Incorporation in the form set forth below has been duly adopted in accordance with the provisions of Section 228, 242 and 245 of the General Corporation Law by the directors and stockholders of the Corporation.

THIRD: That the Amended and Restated Certificate of Incorporation of the Corporation so adopted reads in its entirety as follows:

ARTICLE I

The name of the Corporation shall be: TriActive, Inc.

ARTICLE II

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

ARTICLE III

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

ARTICLE IV

A. Classes of Stock. The Corporation is authorized to issue two classes of shares to be designated respectively Preferred Stock ("Preferred Stock") and Common Stock ("Common Stock"). The total number of shares of capital stock that the Corporation is authorized to issue is 18,676,877. The total number of shares of Preferred Stock this Corporation shall have authority to issue is 5,676,877. The total number of shares of Common Stock this Corporation shall have authority to issue is 13,000,000. The Preferred Stock and the Common Stock shall have a par value of \$0.001 per share.

B. Preferred Stock. The Preferred Stock shall be divided into series. The first series shall consist of 257,850 shares and is designated "Series A Preferred Stock." The second series shall consist of 547,669 shares and is designated "Series B Preferred Stock." The third series shall consist of 4,871,358 shares and is designated "Series C Preferred Stock."

C. Rights, Preferences and Restrictions of Preferred Stock. The powers, preferences, rights, restrictions, and other matters relating to the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock are as follows:

1. Dividends.

a. The holders of the Series A Preferred Stock and Series B Preferred Stock shall be entitled to receive non-cumulative dividends, payable out of funds legally available therefor, when, as, and if declared by the Board of Directors. The holders of the Series C Preferred Stock shall be entitled to receive non-cumulative dividends, payable out of funds legally available therefor, when, as, and if declared by the Board of Directors at the rate of \$0.0739 per share per annum prior and in preference to any dividends declared or paid on the Series A Preferred Stock, Series B Preferred Stock, or Common Stock. Holders of Series C Preferred Stock shall also be entitled to an amount per share equal to any cash dividends paid on Common Stock.

No dividends (other than those payable solely in the Common Stock of the Corporation) shall be paid on any Common Stock of the Corporation during any fiscal year of the Corporation until dividends on the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall have been paid or declared and set apart during that fiscal year and any prior year in which dividends accumulated but remain unpaid.

b. In the event the Corporation shall declare a distribution payable in securities of other persons, evidences of indebtedness issued by the Corporation or other persons, assets (excluding cash dividends) or options or rights to purchase any such securities or evidences of indebtedness, then, in each such case the holders of the Series A

Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be entitled to a proportionate share of any such distribution as though the holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock were the holders of the number of shares of Common Stock of the Corporation into which their respective shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock are convertible as of the record date fixed for the determination of the holders of Common Stock of the Corporation entitled to receive such distribution.

2. Liquidation Preference.

a. In the event of any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, the holders of the Series A Preferred Stock, Series B Preferred Stock, and Series C Preferred Stock shall be entitled to receive, prior and in preference to any payment or distribution and setting apart for payment or distribution of any of the assets or surplus funds of the Corporation to the holders of the Common Stock and to the holders of any other Equity Securities (as defined in Section C.5(d)(i) below), an amount for each share of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock then held by them equal to \$0.50, \$1.20 and \$0.92376 respectively (as appropriately adjusted for any stock split, stock dividends, combinations, recapitalizations and the like) plus any unpaid dividends on the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock declared on or prior to the date of full payment of such liquidation preference (the "Series A Liquidation Amount," "Series B Liquidation Amount" and "Series C Liquidation Amount," respectively, and each a "Liquidation Amount").

b. If upon the occurrence of any liquidation, dissolution or winding up of the Corporation, the assets and funds thus distributed among the holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be insufficient to permit the payment to such holders of the full Series A Liquidation Amount, Series B Liquidation Amount and Series C Liquidation Amount, then the entire assets and funds of the Corporation legally available for distribution shall be distributed *first* ratably among the holders of the Series C Preferred Stock in proportion to the full Series C Liquidation Amounts which such holders would otherwise be entitled, and if any assets or funds of the Corporation remain legally available for distribution after distribution of the full Series C Liquidation Amount, *second* ratably among the holders of the Series A Preferred Stock and Series B Preferred Stock in proportion to the aggregate of their Series A Liquidation Amount and Series B Liquidation Amount.

c. If the assets and funds of the Corporation available for distribution to the Corporation's shareholders exceed the aggregate liquidation preferences payable to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock pursuant to paragraph C.2(b), then after the payments required by paragraph C.2(b) shall have been made or irrevocably set apart for payment, such assets or funds shall be distributed among the holders of Common Stock, Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock ratably based upon the number of shares of Common Stock held by them and the number of shares of Common Stock which they then have the right to acquire upon conversion of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, provided, however, that the amounts which the holders of Preferred

Stock shall be entitled to receive pursuant to paragraph C.2(b) above and this paragraph C.2(c), if any, in the aggregate shall not exceed (i) \$2.50 per share of Series A Preferred Stock, (ii) \$6.00 per share of Series B Preferred Stock and (iii) \$4.62 per share of Series C Preferred Stock, in each case as adjusted for any stock dividend, split, combination, recapitalization or the like with respect to such shares.

d. For purposes of this Section C.2, a liquidation, dissolution or winding up of the Corporation shall be deemed to be occasioned by, or to include, (i) the acquisition of the Corporation by means of merger or other form of corporate reorganization in which outstanding shares of the Corporation are exchanged for securities or other consideration issued, or caused to be issued, by the acquiring corporation or its subsidiary (other than a mere reincorporation transaction) or (ii) a sale of all or substantially all of the assets of the Corporation, shall be treated as a liquidation, dissolution or winding up of the Corporation and shall entitle the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock to receive at the closing in cash, securities or other property (valued as provided in Section C.2(e) below) amounts as specified in Sections C.2(a), C.2(b) and C.2(c) above; unless in each of the cases of clauses (i) and (ii) above, the Corporation's stockholders of record as constituted immediately prior to such acquisition or sale will, immediately after such acquisition or sale (by virtue of securities issued as consideration for the Corporation's acquisition or sale or otherwise) hold more than 50% of the voting power of the surviving or acquiring entity.

e. Whenever the distribution provided for in this Section C.2 shall be payable in securities or property other than cash, the value of such distribution shall be the fair market value of such securities or other property as determined in good faith by the Board of Directors.

f. The Corporation shall give each holder of record of Series C Preferred Stock written notice of any impending transaction described in (d)(i) or (ii) above not later than 20 days prior to the stockholders' meeting called to approve such transaction, or 20 days prior to the closing of such transaction, whichever is earlier, and shall also notify such holders in writing of the final approval of such transaction. The first of such notices shall describe the material terms and conditions of the impending transaction and the provisions of this Section 2, and the Corporation shall thereafter give such holders prompt notice of any material changes. The transaction shall in no event take place sooner than 20 days after the Corporation has given notice provided for herein or sooner than 10 days after the Corporation has given notice of any material changes provided for herein; provided, however that such periods may be shortened upon the written consent of holders of a majority of the Series C Preferred Stock.

3. Voting Rights. Each holder of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which such shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock could be converted and shall have voting rights and powers equal to the voting rights and powers of the Common Stock (except as otherwise expressly provided herein or as required by law, voting together with the Common Stock as a single class) and shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation. Fractional votes shall not, however, be permitted and any

fractional voting rights resulting from the above formula (after aggregating all shares into which shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock held by each holder could be converted) shall be rounded to the nearest whole number (with one half being rounded upward). Each holder of Common Stock shall be entitled to one vote for each shares of Common Stock held.

4. Redemption.

a. At any time after May 1, 2004, upon receipt by the Corporation of a written request from the holders of not less than a majority of the then outstanding Series C Preferred Stock (a "Redemption Request") that all of the then outstanding Series C Preferred Stock be redeemed, and concurrently with surrender by such holders of the certificates representing such shares, the Corporation shall, to the extent it may lawfully do so, redeem in three equal installments (each payment date being referred to herein as a "Redemption Date") the shares specified in such Redemption Request by paying a sum per share of Series C Preferred Stock equal to the Series C Liquidation Amount ("Redemption Price"). The first Redemption Date shall occur 30 days after the Corporation receives a Redemption Request. The second Redemption Date shall occur on the first anniversary of the first Redemption Date and the third Redemption Date shall occur on the second anniversary of the first Redemption Date.

b. If the funds of the Corporation legally available for redemption of shares of Series C Preferred Stock on a Redemption Date are insufficient to redeem the total number of shares of Series C Preferred Stock to be redeemed on such date, those funds that are legally available will be used to redeem the maximum possible number of such shares to be redeemed such that each holder of shares of Series C Preferred Stock receives the same percentage of the applicable Redemption Price. The shares of Series C Preferred Stock not redeemed shall remain outstanding and entitled to all the rights and preferences provided herein. At any time thereafter when additional funds of the Corporation are legally available for the redemption of shares of Series C Preferred Stock, such funds will immediately be used to redeem the balance of the shares that the Corporation has become obligated to redeem on any Redemption Date but that it has not redeemed.

5. Conversion. The holders of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall have conversion rights as follows (the "Conversion Rights"):

a. Right to Convert.

(i) Series A Preferred Stock. Each share of Series A Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing \$0.50 by the Conversion Price applicable to such share, determined as hereinafter provided, in effect on the date the certificate is surrendered for conversion. The price at which shares of Common Stock shall be deliverable upon conversion of shares of the Series A Preferred Stock (the "Series A Conversion Price") shall initially be \$0.50 per share of Common Stock. Such initial Series A Conversion Price shall be adjusted as hereinafter provided.

(ii) Series B Preferred Stock. Each share of Series B Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing \$1.20 by the Conversion Price applicable to such share, determined as hereinafter provided, in effect on the date the certificate is surrendered for conversion. The price at which shares of Common Stock shall be deliverable upon conversion of shares of the Series B Preferred Stock (the "Series B Conversion Price") shall initially be \$1.20 per share of Common Stock. Such initial Series B Conversion Price shall be adjusted as hereinafter provided.

(iii) Series C Preferred Stock. Each share of Series C Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for such stock, into such number of fully paid and nonassessable shares of Common Stock as is determined by dividing \$0.924, plus any accrued but unpaid dividends, by the Conversion Price applicable to such share, determined as hereinafter provided, in effect on the date the certificate is surrendered for conversion. The price at which shares of Common Stock shall be deliverable upon conversion of shares of the Series C Preferred Stock (the "Series C Conversion Price") shall initially be \$0.924 per share of Common Stock. Such initial Series C Conversion Price shall be adjusted as hereinafter provided.

b. Automatic Conversion.

(i) Stock, Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock. Each share of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall automatically be converted into shares of Common Stock at their respective Conversion Price then in effect upon the earlier of (i) the date specified by written consent or agreement of holders of a majority of the shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock then outstanding, with respect to each series, or (ii) immediately upon the closing of the sale of the Corporation's Common Stock in a firm commitment, underwritten public offering registered under the Securities Act of 1933, as amended (the "Securities Act") at a public offering price (prior to underwriters' discounts and expenses) equal to or exceeding \$4.00 per share of Common Stock (as adjusted for any stock dividends, combinations or splits with respect to such shares) and the aggregate proceeds to the Corporation exceed \$15,000,000 (a "Qualified Public Offering").

c. Mechanics of Conversion.

(i) Before any holder of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock shall be entitled to convert the same into shares of Common Stock or other equity securities of the Corporation, such holder shall surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for such stock, and shall give written notice to the Corporation at such office that he elects to convert the same and shall state therein the name or names in which he wishes the certificate or certificates for shares of Common Stock to be issued. The Corporation shall, as soon as practicable thereafter, issue and deliver at such office to such holder of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock, a certificate or certificates

for the number of shares of Common Stock to which he shall be entitled as aforesaid. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of surrender of the shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of Common Stock on such date.

(ii) If the conversion is in connection with an underwritten offering of securities pursuant to the Securities Act, the conversion may, at the option of any holder tendering shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock for conversion, be conditioned upon the closing with the underwriters of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock upon conversion of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock shall not be deemed to have converted such Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock until immediately prior to the closing of such sale of securities.

d. Adjustments to Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock Conversion Price for Certain Diluting Issues.

(i) Special Definitions. For purposes of this Section C.5(d), the following definitions apply:

(1) "Options" shall mean rights, options, or warrants to subscribe for, purchase or otherwise acquire either Common Stock or Convertible Securities (defined below).

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

(3) "Convertible Securities" shall mean any evidences of indebtedness, shares (other than Common Stock, Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock) or other securities convertible into or exchangeable for Common Stock.

(4) "Equity Security" means any of the Corporation's stock or similar security, including without limitation, securities containing equity features and securities containing profit participation features, or any security convertible or exchangeable, with or without consideration, into or for any stock or similar security, or any security carrying any warrant or right to subscribe for or purchase any stock or similar security, or any such warrant or right.

(5) "Additional Shares of Common Stock" shall mean all shares of Common Stock issued (or, pursuant to Section C.5(d)(iii), deemed to be issued) by the Corporation after the Original Issue Date, other than (i) the Series C Preferred Stock issued pursuant to that certain Series C Preferred Stock Purchase Agreement of the Corporation dated on or about the date hereof; or (ii) shares of Common Stock issued or issuable:

(A) upon conversion of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock;

(B) to officers, directors or employees of, or consultants to, the Corporation pursuant to stock option/stock incentive plans or agreements on terms approved by the Board of Directors;

(C) as a dividend or distribution on Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock; or

(D) for which adjustment of the Series A Preferred Stock, Series B Preferred Stock Conversion Price or Series C Preferred Stock Conversion Price is made pursuant to Section C.5(e)

(E) in connection with corporate partnering transactions, business relationships, lease lines, bank financings or acquisitions of businesses, assets or intellectual property rights, provided in each such case that such transaction and the related deemed issuance of Common Stock were approved by the Board of Directors and does not have as its primary purpose of equity financing.

(ii) No Adjustment of Conversion Price. Any provision herein to the contrary notwithstanding, no adjustment in the Series A Conversion Price, Series B Conversion Price or Series C Preferred Stock shall be made in respect of the issuance of Additional Shares of Common Stock unless the consideration per share (determined pursuant to Section C.5(d)(v) hereof) for an Additional Share of Common Stock issued or deemed to be issued by the Corporation is less than the Conversion Price in effect for such series on the date of, and immediately prior to such issue.

(iii) Deemed Issuance of Additional Shares of Common Stock. In the event the Corporation at any time or from time to time after the Original Issue Date shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities then entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein designed to protect against dilution) of Common Stock 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 further that in any such case in which Additional Shares of Common Stock are deemed to be issued:

(1) no further adjustments in the Series A Conversion Price, Series B Conversion Price and 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;

(2) if such Options or Convertible Securities by their terms provide, with the passage of time or otherwise, for any increase in the consideration

payable to the Corporation, or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the Series A Conversion Price, Series B Conversion Price and Series C Conversion Price 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 (provided, however, that no such adjustment of the Series A Conversion Price, Series B Conversion Price and Series C Conversion Price shall effect Common Stock previously issued upon conversion of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock);

(3) no readjustment pursuant to clause (2) or (3) above shall have the effect of increasing the Series A Conversion Price, Series B Conversion Price or Series C Conversion Price to an amount which exceeds the lower of (a) the Conversion Price in effect for such series on the original adjustment date, or (b) the Series A Conversion Price, Series B Conversion Price and Series C Conversion Price that would have resulted from any issuance of Additional Shares of Common Stock between the original adjustment date and such readjustment date.

(iv) Adjustment of Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event this Corporation, at any time after the Original Issue Date shall issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Section C.5(d)(iii)) without consideration or for a consideration per share less than the Conversion Price in effect on the date of and immediately prior to such issue with respect to any series of Preferred Stock, then and in such event, the such Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying the such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common Stock so issued would purchase at the Conversion Price for such series of Preferred Stock in effect immediately prior to such issuance, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common Stock so issued. For the purpose of the above calculation, the number of shares of Common Stock outstanding immediately prior to such issue shall be calculated on a fully diluted basis, as if all shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock and all Convertible Securities had been fully converted into shares of Common Stock and any outstanding warrants, options or other rights for the purchase of shares of stock or convertible securities had been fully exercised (and the resulting securities fully converted into shares of Common Stock, if so convertible) as of such date.

(v) Determination of Consideration. For purposes of this Section C.5(d), the consideration received by the Corporation for the issue of any Additional Shares of Common Stock shall be computed as follows:

(1) Cash and Property: Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation excluding amounts paid or payable for accrued interest or accrued dividends;

(B) insofar as it consists of property other than cash, be computed at the fair value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(C) 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 (A) and (B) above, as determined in good faith by the Board of Directors.

(2) 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 Section C.5(d)(iii), relating to Options and Convertible Securities shall be determined by dividing

(A) 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 provision contained therein designed to protect against dilution) 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

(B) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein designed to protect against the dilution) issuable upon the exercise of such Options or conversion or exchange of such Convertible Securities.

e. Adjustments to Conversion Prices for Stock Dividends and for Combinations or Subdivisions of Common Stock. In the event that this Corporation at any time or from time to time after the Original Issue Date shall declare or pay, without consideration, any dividend on the Common Stock payable in Common Stock or in any right to acquire Common Stock for no consideration, or shall effect a subdivision of the outstanding shares of Common Stock into a greater number of shares of Common Stock (by stock split, reclassification or otherwise than by payment of a dividend in Common Stock or in any right to acquire Common Stock), or in the event the outstanding shares of Common Stock shall be combined or consolidated, by reclassification or otherwise, into a lesser number of shares of Common Stock, then the Conversion Price for any series of Preferred Stock in effect immediately prior to such event shall, concurrently with the effectiveness of such event, be proportionately decreased or increased, as appropriate. In the event that this Corporation shall declare or pay, without consideration, any dividend on the Common Stock payable in any right to acquire Common Stock for no consideration then the Corporation shall be deemed to have

made a dividend payable in Common Stock in an amount of shares equal to the maximum number of shares issuable upon exercise of such rights to acquire Common Stock.

f. Adjustments for Reclassification and Reorganization. If the Common Stock issuable upon conversion of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for in Section C.5(e) above or a merger or other reorganization referred to in Section C.2(c) above), the Conversion Price then in effect for such series shall, concurrently with the effectiveness of such reorganization or reclassification, be proportionately adjusted so that the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be convertible into, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, a number of shares of such other class or classes of stock equivalent to the number of shares of Common Stock that would have been subject to receipt by the holders upon conversion of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock immediately before that change.

g. No Impairment. The Corporation will not, by amendment of its Amended and Restated 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 C.5 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock against impairment.

h. Certificates as to Adjustments. Upon the occurrence of each adjustment or readjustment of any Conversion Price pursuant to this Section C.5, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and prepare and furnish to each holder of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock a certificate executed by the Corporation's President or Chief Financial Officer 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 Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price for such series of Preferred Stock at the time in effect, and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock.

i. Notices of Record Date. In the event that the Corporation shall propose at any time: (i) to declare any dividend or distribution upon its Common Stock, whether in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus; (ii) to offer for subscription pro rata to the

holders of any class or series of its stock any additional shares of stock of any class or series or other rights; or (iii) to effect any reclassification or recapitalization of its Common Stock outstanding involving a change in the Common Stock;

Then, in connection with each such event, the Corporation shall send to the holders of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock: (1) at least 20 days prior written notice of the date on which a record shall be taken for such dividend, distribution or subscription rights (and specifying the date on which the holders of Common Stock shall be entitled thereto) or for determining rights to vote, if any, in respect of the matters referred to in (iii) above; and (2) in the case of the matters referred to in (iii) and at least 20 days prior written notice of the date when the same shall take place (and specifying the date on which the holders of Common Stock shall be entitled to exchange their Common Stock for securities or other property deliverable upon the occurrence of such event).

j. Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock, solely for the purpose of effecting the conversion of the shares of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding shares of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Amended and Restated Certificate.

k. Fractional Shares. No fractional share shall be issued upon the conversion of any share or shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock. All shares of Common Stock (including fractions thereof) issuable upon conversion of more than one share of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock by a holder thereof shall be aggregated for purposes of determining whether the conversion would result in the issuance of any fractional share. If, after the aforementioned aggregation, the conversion would result in the issuance of a fraction of a share of Common Stock, the Corporation shall, in lieu of issuing any fractional share, pay the holder otherwise entitled to such fraction a sum in cash equal to the fair market value of such fraction on the date of conversion (as determined in good faith by the Board of Directors).

l. Notices. Any notice required by the provisions of this Section C.5 to be given to the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at his address appearing on the books of the Corporation.

6. Protective Provisions.

a. So long as any shares of Series A Preferred Stock and Series B Preferred Stock remain outstanding, the Corporation shall not, without the vote or written consent by the holders of at least a majority of the then outstanding shares of the Series A Preferred Stock and Series B Preferred Stock, voting together as a single class, make any amendment to the Amended and Restated Certificate of Incorporation of the Corporation that would adversely affect the rights, preferences, privileges or restrictions of or on the holders of the Series A Preferred Stock or Series B Preferred Stock (including without limitation this Section 6(a)).

7. Series C Protective Provisions. So long as any shares of Series C Preferred Stock are outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent, as permitted by law) of the holders of at least a majority of the then outstanding shares of Series C Preferred Stock, voting or acting as a single class:

a. Effect any liquidation, sale, lease, assignment, transfer, exchange or other conveyance of all or substantially all of the assets of the Corporation, or any acquisition of the Corporation by another entity by means of any transaction or series of related transactions (including, without limitation, any reorganization, merger or consolidation) that results in the transfer of 50% or more of the outstanding voting power of the Corporation;

b. Purchase, redeem or otherwise acquire for value (or pay into or set aside for a sinking fund for such purpose) any shares of Preferred Stock other than by redemption of shares of Series C Preferred Stock in accordance with Section 4 hereof or by conversion in accordance with Section 5 hereof;

c. Purchase, redeem or otherwise acquire for value (or pay into or set aside as a sinking fund for such purpose) any of the Common Stock; provided, however, that this restriction shall not apply to the repurchase of shares of Common Stock at cost from employees, officers, directors, consultants or other persons performing services for the Corporation pursuant to agreements under which the Corporation has the option to repurchase such shares, such as the termination of employment or service to the Corporation;

d. Authorize, issue or reclassify or become obligated to authorize or issue any other Equity Security that would rank on a parity with or senior to the Series C Preferred Stock with respect to dividends or upon liquidation;

e. Increase or decrease (other than by the redemption or conversion of the Series C Preferred Stock and the repurchase of stock from employees at cost pursuant to agreements to repurchase such stock) the total number of authorized shares of Preferred Stock or Common Stock;

f. Incur, or suffer to exist, any indebtedness greater than \$150,000 in each instance;

g. Amend its Amended and Restated Certificate or Bylaws;

h. Effect any substantial change in the business conducted by the Corporation;

i. Authorize the issuance of or issue additional shares of stock to employees other than as approved by the Board of Directors;

j. Alter or change any of the rights, preferences or privileges of the Series C Preferred Stock; or

k. Authorize, issue or become obligated to issue more than 4,871,358 shares of Series C Preferred Stock.

8. No Reissuance of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock. No share or shares of Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock acquired by the Corporation by reason of redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be cancelled, retired and eliminated from the shares which the Corporation shall be authorized to issue.

The Corporation reserves the right to adopt, repeal, rescind or amend in any respect any provisions contained in this Amended and Restated Certificate of Incorporation in the manner now or hereafter prescribed by applicable law, and all rights conferred on stockholders herein are granted subject to this reservation.

ARTICLE V

The management of the business and the conduct of the affairs of the Corporation shall be vested in the Corporation's Board of Directors. The number of directors constituting the whole Board of Directors shall be fixed by, or in the manner provided in, the Bylaws of the Corporation.

ARTICLE VI

Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

ARTICLE VII

A director of the Corporation shall, to the full extent permitted by the Delaware General Corporation Law as it now exists or as it may hereafter be amended, not be liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of this Restated Certificate of Incorporation inconsistent with the Article VII, shall eliminate or reduce the effect of this Article VII in respect of any matter occurring, or any cause of action, suit or claim that, but for this Article VII, would accrue or arise, prior to such amendment, repeal or

adoption of an inconsistent provision. If the Delaware General Corporation Law is amended, after approval by the stockholders of this Article, to authorize corporate action further eliminating or limiting the personal liability of the directors, then the liability of a director shall be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law, as so amended.

ARTICLE VIII

In furtherance and not in limitation of the powers conferred by statute, the Board of Directors shall have the power, both before and after receipt of any payment for any of the Corporation's capital stock, to adopt, amend, repeal or otherwise alter the Bylaws of the Corporation without any action on the part of the stockholders; provided, however, that the grant of such power to the Board of Directors shall not divest the stockholders of nor limit their power to adopt, amend, repeal or otherwise alter the Bylaws.

ARTICLE IX

The Corporation expressly elects not to be governed by Section 203 of the Delaware General Corporation law.

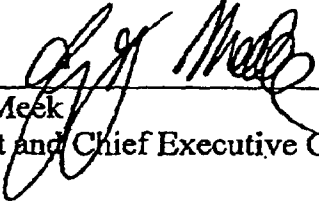
ARTICLE X

To the fullest extent permitted by applicable law, the Corporation is authorized to provide indemnification of (and advancement of expenses to) agents of the Corporation (and any other persons to which the Delaware General Corporation Law permits the Corporation to provide indemnification) through bylaw provisions, agreements with such agents or other persons, vote of stockholders or disinterested directors or otherwise, in excess of indemnification and advancement otherwise permitted by Section 145 of the Delaware General Corporation Law, subject only to limits created by applicable law (statutory or non-statutory), with respect to actions for breach of duty to the Corporation, its stockholders, and others.

Any amendment, repeal or modification of the foregoing provisions of this Article X shall not adversely affect any right or protection of a director, officer, agent, or other person existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director, officer or agent occurring prior to, such amendment, repeal or modification.

IN WITNESS WHEREOF, TriActive Technologies, Inc. has caused this Amended and Restated Certificate to be executed by its duly authorized representative as of September 21, 1999.

TRIACTIVE TECHNOLOGIES, INC.

By: 
Glyn J. Meek
President and Chief Executive Officer