

**AMENDED AND RESTATED BYLAWS
OF ARCHIPELAGO HOLDINGS, INC.**

ARTICLE I

Stockholders

Section 1.1 Annual Meetings. An annual meeting of stockholders shall be held for the election of directors at such date, time and place either within or without the State of Delaware as may be designated by the Board of Directors from time to time. Any other business properly brought before the meeting may be transacted at the annual meeting.

Section 1.2 Special Meetings. Special meetings of stockholders may be called at any time by, and only by, the Board of Directors, the Chief Executive Officer or the Chairman of the Board of Directors, to be held at such date, time and place either within or without the State of Delaware as may be stated in the notice of the meeting.

Section 1.3 Notice of Meetings. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, date and hour of the meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Unless otherwise required by law, the written notice of any meeting shall be given not less than ten nor more than sixty days before the date of the meeting to each stockholder entitled to vote at such meeting. If mailed, such notice shall be deemed to be given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the records of the Corporation.

Section 1.4 Adjournments. Any meeting of stockholders, annual or special, may be adjourned from time to time, to reconvene at the same or some other place, and

notice need not be given of any such adjourned meeting if the time and place thereof are announced at the meeting at which the adjournment is taken. At the adjourned meeting the Corporation may transact any business which might have been transacted at the original meeting. If the adjournment is for more than thirty days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

Section 1.5 Organization. Meetings of stockholders shall be presided over by a Chairman of the Board, if any, or in the absence of a Chairman of the Board by a Vice Chairman of the Board, if any, or in the absence of a Vice Chairman of the Board by a Chief Executive Officer, or in the absence of a Chief Executive Officer by a Senior Executive Officer, or in the absence of a Senior Executive Officer by a Vice President, or in the absence of the foregoing persons by a chairman designated by the Board of Directors, or in the absence of such designation by a chairman chosen at the meeting. Each of the following is a Senior Executive Officer: Chief Financial Officer, Chief Administrative Officer, Chief Operating Officer, Chief Technology Officer and President. A Corporate Secretary, or in the absence of a Corporate Secretary an Assistant Corporate Secretary, shall act as secretary of the meeting, but in the absence of a Corporate Secretary and any Assistant Corporate Secretary the chairman of the meeting may appoint any person to act as secretary of the meeting.

The order of business at each such meeting shall be as determined by the chairman of the meeting. The chairman of the meeting shall have the right and authority to adjourn a meeting of stockholders without a vote of stockholders and to prescribe such

rules, regulations and procedures and to do all such acts and things as are necessary or desirable for the proper conduct of the meeting and are not inconsistent with any rules or regulations adopted by the Board of Directors pursuant to the provisions of the certificate of incorporation, including the establishment of procedures for the maintenance of order and safety, limitations on the time allotted to questions or comments on the affairs of the Corporation, restrictions on entry to such meeting after the time prescribed for the commencement thereof and the opening and closing of the voting polls for each item upon which a vote is to be taken.

Section 1.6 Inspectors. Prior to any meeting of stockholders, the Board of Directors, a Chairman of the Board, a Vice Chairman of the Board, a Chief Executive Officer, a Senior Executive Officer, a Vice President or any other officer designated by the Board shall appoint one or more inspectors to act at such meeting and make a written report thereof and may designate one or more persons as alternate inspectors to replace any inspector who fails to act. If no inspector or alternate is able to act at the meeting of stockholders, the person presiding at the meeting shall appoint one or more inspectors to act at the meeting. Each inspector, before entering upon the discharge of his or her duties, shall take and sign an oath faithfully to execute the duties of inspector with strict impartiality and according to the best of his or her ability. The inspectors shall ascertain the number of shares outstanding and the voting power of each, determine the shares represented at the meeting and the validity of proxies and ballots, count all votes and ballots, determine and retain for a reasonable period a record of the disposition of any challenges made to any determination by the inspectors and certify their determination of the number of shares represented at the meeting and their count of all votes and ballots.

The inspectors may appoint or retain other persons to assist them in the performance of their duties. The date and time of the opening and closing of the polls for each matter upon which the stockholders will vote at a meeting shall be announced at the meeting. No ballot, proxy or vote, nor any revocation thereof or change thereto, shall be accepted by the inspectors after the closing of the polls. In determining the validity and counting of proxies and ballots, the inspectors shall be limited to an examination of the proxies, any envelopes submitted therewith, any information provided by a stockholder who submits a proxy by telegram, cablegram or other electronic transmission from which it can be determined that the proxy was authorized by the stockholder, ballots and the regular books and records of the Corporation, and they may also consider other reliable information for the limited purpose of reconciling proxies and ballots submitted by or on behalf of banks, brokers, their nominees or similar persons which represent more votes than the holder of a proxy is authorized by the record owner to cast or more votes than the stockholder holds of record. If the inspectors consider other reliable information for such purpose, they shall, at the time they make their certification, specify the precise information considered by them, including the person or persons from whom they obtained the information, when the information was obtained, the means by which the information was obtained and the basis for the inspectors' belief that such information is accurate and reliable.

Section 1.7 Voting; Proxies. Unless otherwise provided in the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of stock held by such stockholder which has voting power upon the matter in question. Each stockholder entitled to vote at a meeting of

stockholders may authorize another person or persons to act for such stockholder by proxy, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. A duly executed proxy shall be irrevocable if it states that it is irrevocable and if, and only as long as, it is coupled with an interest sufficient in law to support an irrevocable power, regardless of whether the interest with which it is coupled is an interest in the stock itself or an interest in the Corporation generally. A stockholder may revoke any proxy which is not irrevocable by attending the meeting and voting in person or by filing an instrument in writing revoking the proxy or another duly executed proxy bearing a later date with a Corporate Secretary. Voting at meetings of stockholders need not be by written ballot unless so directed by the chairman of the meeting or the Board of Directors. Directors shall be elected by a plurality of the votes of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors. In all other matters, unless otherwise required by law, the certificate of incorporation or these bylaws, a majority of the votes cast for or against the matter at the meeting by stockholders entitled to vote on the subject matter shall be the act of the stockholders. Where a separate vote by class or classes is required, the affirmative vote of the holders of a majority (or, in the case of an election of directors, a plurality) of the votes cast for or against the matter at the meeting by stockholders in that class or classes entitled to vote on the subject matter shall be the act of such class or classes, except as otherwise required by law, the certificate of incorporation or these bylaws.

Section 1.8 Fixing Date for Determination of Stockholders of Record. In order that the Corporation may determine the stockholders entitled to notice of or to vote at any

meeting of stockholders or any adjournment thereof, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board of Directors, and which record date shall not be more than sixty nor less than ten days before the date of such meeting. If no record date is fixed by the Board of Directors, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held. A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

In order that the Corporation may determine the stockholders entitled to receive payment of any dividend or other distribution or allotment of any rights or the stockholders entitled to exercise any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action, the Board of Directors may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted, and which record date shall be not more than sixty days prior to the action for which a record date is being established. If no record date is fixed, the record date for determining stockholders for any such purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating thereto.

Section 1.9 List of Stockholders Entitled to Vote. A Corporate Secretary shall prepare and make, at least ten days before every meeting of stockholders, a complete list

of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder.

Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, during ordinary business hours, for a period of at least ten days prior to the meeting, either at a place within the municipality where the meeting is to be held, which place shall be specified in the notice of the meeting, or, if not so specified, at the place where the meeting is to be held. The list shall also be produced and kept at the time and place of the meeting during the whole time thereof and may be inspected by any stockholder who is present.

Section 1.10 Advance Notice of Stockholder Nominees for Director and Other Stockholder Proposals. (a) The matters to be considered and brought before any annual or special meeting of stockholders of the Corporation shall be limited to only such matters, including the nomination and election of directors, as shall be brought properly before such meeting in compliance with the procedures set forth in this Section 1.10.

(b) For any matter to be properly brought before any annual meeting of stockholders, the matter must be (i) specified in the notice of annual meeting given by or at the direction of the Board of Directors, (ii) otherwise brought before the annual meeting by or at the direction of the Board of Directors or (iii) brought before the annual meeting in the manner specified in this Section 1.10(b) (x) by a stockholder that holds of record stock of the Corporation entitled to vote at the annual meeting on such matter (including any election of a director) or (y) by a

person (a “Nominee Holder”) that holds such stock through a nominee or “street name” holder of record of such stock and can demonstrate to the Corporation such indirect ownership of, and such Nominee Holder’s entitlement to vote, such stock on such matter. In addition to any other requirements under applicable law, the certificate of incorporation and these bylaws, persons nominated by stockholders for election as directors of the Corporation and any other proposals by stockholders shall be properly brought before an annual meeting of stockholders only if notice of any such matter to be presented by a stockholder at such meeting (a “Stockholder Notice”) shall be delivered to a Corporate Secretary at the principal executive office of the Corporation not less than ninety nor more than one hundred and twenty days prior to the first anniversary date of the annual meeting for the preceding year (or, in the case of the annual meeting of stockholders to be held in 2005, not less than ninety nor more than one hundred and twenty days prior to May 2, 2005); provided, however, that if and only if the annual meeting is not scheduled to be held within a period that commences thirty days before and ends thirty days after such anniversary date (or May 2, 2005, in the case of the annual meeting of stockholders to be held in 2005) (an annual meeting date outside such period being referred to herein as an “Other Meeting Date”), such Stockholder Notice shall be given in the manner provided herein by the later of (i) the close of business on the date ninety days prior to such Other Meeting Date or (ii) the close of business on the tenth day following the date on which such Other Meeting Date is first publicly announced or disclosed. Any stockholder desiring to nominate any person or persons (as the case may be) for election as a director or directors of the

Corporation at an annual meeting of stockholders shall deliver, as part of such Stockholder Notice, a statement in writing setting forth the name of the person or persons to be nominated, the number and class of all shares of each class of stock of the Corporation owned of record and beneficially by each such person, as reported to such stockholder by such person, the information regarding each such person required by paragraphs (a), (e) and (f) of Item 401 of Regulation S-K adopted by the Securities and Exchange Commission, each such person's signed consent to serve as a director of the Corporation if elected, such stockholder's name and address, the number and class of all shares of each class of stock of the Corporation owned of record and beneficially by such stockholder and, in the case of a Nominee Holder, evidence establishing such Nominee Holder's indirect ownership of stock and entitlement to vote such stock for the election of directors at the annual meeting. Any stockholder who gives a Stockholder Notice of any matter (other than a nomination for director) proposed to be brought before an annual meeting of stockholders shall deliver, as part of such Stockholder Notice, the text of the proposal to be presented and a brief written statement of the reasons why such stockholder favors the proposal and setting forth such stockholder's name and address, the number and class of all shares of each class of stock of the Corporation owned of record and beneficially by such stockholder, any material interest of such stockholder in the matter proposed (other than as a stockholder), if applicable, and, in the case of a Nominee Holder, evidence establishing such Nominee Holder's indirect ownership of stock and entitlement to vote such stock on the matter proposed at the annual meeting. As used in these bylaws, shares

“beneficially owned” shall mean all shares which such person is deemed to beneficially own pursuant to Rules 13d-3 and 13d-5 under the Securities Exchange Act of 1934, as amended (the “Exchange Act”). If a stockholder is entitled to vote only for a specific class or category of directors at a meeting (annual or special), such stockholder’s right to nominate one or more individuals for election as a director at the meeting shall be limited to such class or category of directors.

Notwithstanding any provision of this Section 1.10 to the contrary, in the event that the number of directors to be elected to the Board of Directors of the Corporation at the next annual meeting of stockholders is increased by virtue of an increase in the size of the Board of Directors and either all of the nominees for director at the next annual meeting of stockholders or the size of the increased Board of Directors is not publicly announced or disclosed by the Corporation at least one hundred days prior to the first anniversary of the preceding year’s annual meeting (or, in the case of the annual meeting of stockholders to be held in 2005, at least one hundred days prior to May 2, 2005), a Stockholder Notice shall also be considered timely hereunder, but only with respect to nominees to stand for election at the next annual meeting as the result of any new positions created by such increase, if it shall be delivered to a Corporate Secretary at the principal executive office of the Corporation not later than the close of business on the tenth day following the first day on which all such nominees or the size of the increased Board of Directors shall have been publicly announced or disclosed.

(c) Except as provided in the immediately following sentence, no matter shall be properly brought before a special meeting of stockholders unless such matter shall have been

brought before the meeting pursuant to the Corporation's notice of such meeting. In the event the Corporation calls a special meeting of stockholders for the purpose of electing one or more directors to the Board of Directors, any stockholder entitled to vote for the election of such director(s) at such meeting may nominate a person or persons (as the case may be) for election to such position(s) as are specified in the Corporation's notice of such meeting, but only if the Stockholder Notice required by Section 1.10(b) hereof shall be delivered to a Corporate Secretary at the principal executive office of the Corporation not later than the close of business on the tenth day following the first day on which the date of the special meeting and either the names of all nominees proposed by the Board of Directors to be elected at such meeting or the number of directors to be elected shall have been publicly announced or disclosed.

(d) For purposes of this Section 1.10, a matter shall be deemed to have been "publicly announced or disclosed" if such matter is disclosed in a press release reported by the Dow Jones News Service, the Associated Press or a comparable national news service or in a document publicly filed by the Corporation with the Securities and Exchange Commission.

(e) In no event shall the adjournment of an annual meeting or a special meeting, or any announcement thereof, commence a new period for the giving of notice as provided in this Section 1.10. This Section 1.10 shall not apply to (i) any stockholder proposal made pursuant to Rule 14a-8 under the Exchange Act or (ii) any nomination of a director in an election in which only the holders of one or more series of Preferred Stock of the Corporation issued pursuant to Article FOURTH of the certificate of incorporation are entitled to vote (unless otherwise provided in the terms of such stock).

(f) The chairman of any meeting of stockholders, in addition to making any other determinations that may be appropriate to the conduct of the meeting, shall have the power and duty to determine whether notice of nominees and other matters proposed to be brought before a meeting has been duly given in the manner provided in this Section 1.10 and, if not so given, shall direct and declare at the meeting that such nominees and other matters shall not be considered.

ARTICLE II Board of Directors

Section 2.1 Powers; Number; Qualifications. The business and affairs of the Corporation shall be managed by or under the direction of the Board of Directors, except as may be otherwise required by law or provided in the certificate of incorporation. The number of directors of the Corporation shall be fixed only by resolution of the Board of Directors from time to time. If the holders of any class or classes of stock or series thereof are entitled by the certificate of incorporation to elect one or more directors, the preceding sentence shall not apply to such directors and the number of such directors shall be as provided in the terms of such stock. Directors need not be stockholders.

Section 2.2 Election; Term of Office; Resignation; Removal; Vacancies. Each director shall hold office until his or her successor is elected and qualified or until his or her earlier resignation or removal. Any director may resign at any time upon written notice to the Board of Directors or to a Chairman of the Board, a Vice Chairman of the Board, a Chief Executive Officer, a President, a Senior Executive Officer or a Corporate Secretary. Such resignation shall take effect at the time specified therein, and unless otherwise specified therein no acceptance of such resignation shall be necessary to make

it effective. Any director or the entire Board of Directors may be removed, with or without cause, by the holders of a majority of the voting power of the shares then entitled to vote at an election of directors. Vacancies and newly created directorships resulting from any increase in the authorized number of directors (other than any directors elected in the manner described in the next sentence) or from any other cause shall be filled by, and only by, a majority of the directors then in office, although less than a quorum, or by the sole remaining director. Whenever the holders of any class or classes of stock or series thereof are entitled by the certificate of incorporation to elect one or more directors, vacancies and newly created directorships of such class or classes or series may be filled by, and only by, a majority of the directors elected by such class or classes or series then in office, or by the sole remaining director so elected. Any director elected or appointed to fill a vacancy or a newly created directorship shall hold office until the next annual meeting of the stockholders, and until his or her successor is elected and qualified or until his or her earlier resignation or removal.

Section 2.3 Regular Meetings. Regular meetings of the Board of Directors may be held at such places within or without the State of Delaware and at such times as the Board may from time to time determine, and if so determined notice thereof need not be given.

Section 2.4 Special Meetings. Special meetings of the Board of Directors may be held at any time or place within or without the State of Delaware whenever called by the Board, by a Chairman of the Board, if any, by a Vice Chairman of the Board, if any, by a Chairman of the Corporate Governance and Nominating Committee, if any, by a Chief Executive Officer, if any, by a Senior Executive Officer, if any, or by any two directors.

Reasonable notice thereof shall be given by the person or persons calling the meeting.

Section 2.5 Participation in Meetings by Conference Telephone Permitted. Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board of Directors, or any committee designated by the Board, may participate in a meeting of the Board or of such committee, as the case may be, by means of conference telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other, and participation in a meeting pursuant to this bylaw shall constitute presence in person at such meeting.

Section 2.6 Quorum; Vote Required for Action. At each meeting of the Board of Directors, one-half of the number of directors equal to (i) the total number of directors fixed by resolution of the board of directors (including any vacancies) plus (ii) the number of directors elected by a holder or holders of Preferred Stock voting separately as a class, as described in the fourth paragraph of Article EIGHTH of the certificate of incorporation (including any vacancies), shall constitute a quorum for the transaction of business. The vote of a majority of the directors present at a meeting at which a quorum is present shall be the act of the Board unless the certificate of incorporation or these bylaws shall require a vote of a greater number. In case at any meeting of the Board a quorum shall not be present, the members or a majority of the members of the Board present may adjourn the meeting from time to time until a quorum shall be present.

Section 2.7 Organization. Meetings of the Board of Directors shall be presided over by a Chairman of the Board, if any, or in the absence of a Chairman of the Board by a Vice Chairman of the Board, if any, or in the absence of a Vice Chairman of the Board,

by a Chief Executive Officer, or in the absence of a Chief Executive Officer, by a Senior Executive Officer, or in the absence of a Senior Executive Officer, by a chairman chosen at the meeting. A Corporate Secretary, or in the absence of a Corporate Secretary an Assistant Corporate Secretary, shall act as secretary of the meeting, but in the absence of a Corporate Secretary and any Assistant Corporate Secretary the chairman of the meeting may appoint any person to act as secretary of the meeting.

Section 2.8 Action by Directors Without a Meeting. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board of Directors, or of any committee thereof, may be taken without a meeting if all members of the Board or of such committee, as the case may be, then in office consent thereto in writing or by electronic transmission, and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Section 2.9 Compensation of Directors.

Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board of Directors shall have the authority to fix the compensation of directors. ARTICLE III Committees Section 3.1 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the Corporation. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such

absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors or in these bylaws, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the Corporation, and may authorize the seal of the Corporation to be affixed to all papers which may require it; but no such committee shall have the power or authority in reference to the following matters: (i) approving or adopting, or recommending to the stockholders, any action or matter expressly required by law to be submitted to stockholders for approval, or (ii) adopting, amending or repealing these bylaws.

Section 3.2 Committee Rules. Unless the Board of Directors otherwise provides, each committee designated by the Board may adopt, amend and repeal rules for the conduct of its business. In the absence of a provision by the Board or a provision in the rules of such committee to the contrary, a majority of the entire authorized number of members of such committee shall constitute a quorum for the transaction of business, the vote of a majority of the members present at a meeting at the time of such vote if a quorum is then present shall be the act of such committee, and in other respects each committee shall conduct its business in the same manner as the Board conducts its business pursuant to Article II of these bylaws. ARTICLE IV Officers; Employees Section 4.1 Officers; Election or Appointment. The Board of Directors shall take such action as may be necessary from time to time to ensure that the Corporation has such officers as are necessary, under Section 5.1 of these bylaws and the Delaware General Corporation Law as currently in effect or as the same may hereafter be amended, to enable it to sign stock certificates. In addition, the Board of Directors at any time and

from time to time may elect (i) one or more Chairmen of the Board and/or one or more Vice Chairmen of the Board from among its members, (ii) one or more Chief Executive Officers, one or more Presidents, one or more Chief Financial Officers, one or more Chief Operating Officers, one or more Chief Administrative Officers and/or one or more Chief Technology Officers, (iii) one or more Vice Presidents, one or more Controllers, one or more Corporate Secretaries and/or (iv) one or more other officers, in the case of each of (i), (ii), (iii) and (iv) if and to the extent the Board deems desirable. The Board of Directors may give any officer such further designations or alternate titles as it considers desirable. In addition, the Board of Directors at any time and from time to time may authorize any officer of the Corporation to appoint one or more officers of the kind described in clauses (iii) and (iv) above. Any number of offices may be held by the same person and directors may hold any office unless the certificate of incorporation or these bylaws otherwise provide.

Section 4.2 Term of Office; Resignation; Removal; Vacancies. Unless otherwise provided in the resolution of the Board of Directors electing or authorizing the appointment of any officer, each officer shall hold office until his or her successor is elected or appointed and qualified or until his or her earlier resignation or removal. Any officer may resign at any time upon written notice to the Board or to such person or persons as the Board may designate. Such resignation shall take effect at the time specified therein, and unless otherwise specified therein no acceptance of such resignation shall be necessary to make it effective. The Board may remove any officer with or without cause at any time. Any officer authorized by the Board to appoint a person to hold an office of the Corporation may also remove such person from such

office with or without cause at any time, unless otherwise provided in the resolution of the Board providing such authorization. Any such removal shall be without prejudice to the contractual rights of such officer, if any, with the Corporation, but the election or appointment of an officer shall not of itself create contractual rights. Any vacancy occurring in any office of the Corporation by death, resignation, removal or otherwise may be filled by the Board at any regular or special meeting or by an officer authorized by the Board to appoint a person to hold such office.

Section 4.3 Powers and Duties. The officers of the Corporation shall have such powers and duties in the management of the Corporation as shall be stated in these bylaws or in a resolution of the Board of Directors which is not inconsistent with these bylaws and, to the extent not so stated, as generally pertain to their respective offices, subject to the control of the Board. A Corporate Secretary or such other officer appointed to do so by the Board shall have the duty to record the proceedings of the meetings of the stockholders, the Board of Directors and any committees in a book to be kept for that purpose. The Board may require any officer, agent or employee to give security for the faithful performance of his or her duties.

ARTICLE V Stock Section

5.1 Certificates; Uncertificated Shares. The shares of stock in the Corporation shall be represented by certificates, provided that the Board of Directors of the Corporation may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to any such shares represented by a certificate theretofore issued until such certificate is surrendered to the Corporation. Notwithstanding the adoption of such a resolution or

resolutions by the Board of Directors of the Corporation, every holder of stock represented by certificates, and upon request every holder of uncertificated shares, shall be entitled to have a certificate signed by or in the name of the Corporation by a Chairman or Vice Chairman of the Board or a President or Vice President, and by a Controller, Assistant Controller, Corporate Secretary or Assistant Corporate Secretary, representing the number of shares of stock in the Corporation owned by such holder. If such certificate is manually signed by one officer or manually countersigned by a transfer agent or by a registrar, any other signature on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate shall have ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Corporation with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. Certificates representing shares of stock of the Corporation may bear such legends regarding restrictions on transfer or other matters as any officer or officers of the Corporation may determine to be appropriate and lawful.

If the Corporation is authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock, *provided* that, except as otherwise required by law, in lieu of the foregoing requirements, there may be set forth on the face or back of the certificate which the Corporation shall issue to represent such class or series of stock a

statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of such class or series of stock and the qualifications, limitations or restrictions of such preferences and/or rights. Within a reasonable time after the issuance or transfer of uncertificated shares of any class or series of stock, the Corporation shall send to the registered owner thereof a written notice containing the information required by law to be set forth or stated on certificates representing shares of such class or series or a statement that the Corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative, participating, optional or other special rights of such class or series and the qualifications, limitations or restrictions of such preferences and/or rights. Except as otherwise expressly provided by law, the rights and obligations of the holders of uncertificated shares and the rights and obligations of the holders of certificates representing stock of the same class and series shall be identical. Section 5.2 Lost, Stolen or Destroyed Stock Certificates; Issuance of New Certificates. The Corporation may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or destroyed, and the Corporation may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Corporation a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

ARTICLE VI Miscellaneous

Section 6.1 Fiscal Year. The fiscal year of the Corporation shall be determined by

the Board of Directors.

Section 6.2 Seal. The Corporation may have a corporate seal which shall have the name of the Corporation inscribed thereon and shall be in such form as may be approved from time to time by the Board of Directors. The corporate seal may be used by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

Section 6.3 Waiver of Notice of Meetings of Stockholders, Directors and Committees. Whenever notice is required to be given by law or under any provision of the certificate of incorporation or these bylaws, a written waiver thereof, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time stated therein, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting, at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders, directors or members of a committee of directors need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

Section 6.4 Indemnification. The Corporation shall indemnify to the full extent permitted by law any person made or threatened to be made a party to any action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person or such person's testator or intestate is or was a director or officer of the Corporation, is or was a director, officer, trustee, member, stockholder, partner,

incorporator or liquidator of a Subsidiary of the Corporation, or serves or served at the request of the Corporation as a director, officer, trustee, member, stockholder, partner, incorporator or liquidator of or in any other capacity for any other enterprise.

Expenses, including attorneys' fees, incurred by any such person in defending any such action, suit or proceeding shall be paid or reimbursed by the Corporation promptly upon demand by such person and, if any such demand is made in advance of the final disposition of any such action, suit or proceeding, promptly upon receipt by the Corporation of an undertaking of such person to repay such expenses if it shall ultimately be determined that such person is not entitled to be indemnified by the Corporation. The rights provided to any person by this bylaw shall be enforceable against the Corporation by such person, who shall be presumed to have relied upon it in serving or continuing to serve as a director, officer or in such other capacity as provided above. In addition, the rights provided to any person by this bylaw shall survive the termination of such person as any such director, officer, trustee, member, stockholder, partner, incorporator or liquidator and, insofar as such person served at the request of the Corporation as a director, officer, trustee, member, stockholder, partner, incorporator or liquidator of or in any other capacity for any other enterprise, shall survive the termination of such request as to service prior to termination of such request. No amendment of this bylaw shall impair the rights of any person arising at any time with respect to events occurring prior to such amendment.

For purposes of this bylaw, the term "Corporation" shall include any predecessor of the Corporation and any constituent corporation (including any constituent of a constituent) absorbed by the Corporation in a consolidation or merger, except that GAP

Archa Holdings, Inc. shall not be included in the definition of “Corporation”; the term “Subsidiary” shall mean any corporation, partnership, limited liability company or other entity in which the Corporation owns, directly or indirectly, a majority of the economic or voting ownership interest; the term “other enterprise” shall include any corporation, partnership, limited liability company, joint venture, trust, association or other unincorporated organization or other entity and any employee benefit plan; the term “officer,” when used with respect to the Corporation, shall refer to any officer elected by or appointed pursuant to authority granted by the Board of Directors of the Corporation pursuant to clauses (i), (ii), (iii) and (iv) of Section 4.1 of these bylaws, when used with respect to a Subsidiary or other enterprise that is a corporation, shall refer to any person elected or appointed pursuant to the bylaws of such Subsidiary or other enterprise or chosen in such manner as is prescribed by the bylaws of such Subsidiary or other enterprise or determined by the Board of Directors of such Subsidiary or other enterprise, and when used with respect to a Subsidiary or other enterprise that is not a corporation or is organized in a foreign jurisdiction, the term “officer” shall include in addition to any officer of such entity, any person serving in a similar capacity or as the manager of such entity; service “at the request of the Corporation” shall include service as a director or officer of the Corporation which imposes duties on, or involves services by, such director or officer with respect to an employee benefit plan, its participants or beneficiaries; any excise taxes assessed on a person with respect to an employee benefit plan shall be deemed to be indemnifiable expenses; and action by a person with respect to an employee benefit plan which such person reasonably believes to be in the interest of the participants and beneficiaries of such plan shall be deemed to be action not opposed to the best

interests of the Corporation.

To the extent authorized from time to time by the Board of Directors, the Corporation may provide to (i) any one or more employees and agents of the Corporation, (ii) any one or more officers, employees and agents of any Subsidiary and (iii) any one or more directors, officers, employees and agents of any other enterprise, rights of indemnification and to receive payment or reimbursement of expenses, including attorneys' fees, on such terms and conditions as the Board of Directors shall determine that are similar to the rights conferred in this Section 6.4 on directors and officers of the Corporation or any Subsidiary or other enterprise.

Any such rights shall have the same force and effect as they would have if they were conferred in this Section 6.4.

Nothing in this Section 6.4 shall limit the power of the Corporation or the Board of Directors to provide rights of indemnification and to make payment and reimbursement of expenses, including attorneys' fees, to directors, officers, employees, agents and other persons otherwise than pursuant to this Section 6.4.

Section 6.5 Interested Directors; Quorum. No contract or transaction between the Corporation and one or more of its directors or officers, or between the Corporation and any other corporation, partnership, limited liability company, joint venture, trust, association or other unincorporated organization or other entity in which one or more of its directors or officers serve as directors, officers, trustees or in a similar capacity or have a financial interest, shall be void or voidable solely for this reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof which authorizes the contract or transaction, or solely because his or

her or their votes are counted for such purpose, if: (i) the material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the Board or the committee, and the Board or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum; (ii) the material facts as to his or her relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by a vote of the stockholders; or (iii) the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified, by the Board, a committee thereof or the stockholders. Common or interested directors may be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee which authorizes the contract or transaction.

Section 6.6 Form of Records. Unless otherwise required by applicable law, any records maintained by the Corporation in the regular course of its business, including its stock ledger, books of account and minute books, may be kept on, or be in the form of, punch cards, magnetic tape, photographs, microphotographs or any other information storage device, provided that the records so kept can be converted into clearly legible form within a reasonable time. The Corporation shall so convert any records so kept upon the request of any person entitled to inspect the same.

Section 6.7 Laws and Regulations; Close of Business. (a) For purposes of these bylaws, any reference to a statute, rule or regulation of any governmental body means such statute, rule or regulation (including any successor thereto) as the same may be amended from time to time.

(b) Any reference in these bylaws to the close of business on any day shall be deemed to mean 5:00 P.M. New York time on such day, whether or not such day is a business day.

Section 6.8 Amendment of Bylaws; Status of the FSA; OTP Holders.

(a) These bylaws may be amended, modified or repealed, and new bylaws may be adopted at any time, by the Board of Directors. Stockholders of the Corporation may adopt additional bylaws and amend, modify or repeal any bylaw whether or not adopted by them.

(b) Notwithstanding paragraph (a) of this Section 6.8, before any amendment to these bylaws shall be effective, such amendment shall be submitted to the Board of Directors of NYSE Arca, Inc. (“NYSE Arca”) and if such Board shall determine that the same is required, under Section 19 of the Exchange Act and the rules promulgated thereunder, to be filed with, or filed with and approved by, the Securities and Exchange Commission before such amendment may be effective under Section 19 of the Exchange Act and the rules promulgated thereunder, then such amendment shall not be effective until filed with, or filed with and approved by, the Securities and Exchange Commission, as the case may be.

(c) The Corporation shall not take any action, and shall not permit any of its Subsidiaries to take any action, that (i) causes NYSE Arca, L.L.C. (“NYSE Arca Marketplace”) to cease to be a Facility (as defined in the certificate of incorporation) of NYSE Arca and NYSE Arca Equities, Inc. (“NYSE Arca Equities”) or (ii) causes the Amended and Restated Facility Services Agreement, dated as of March 22, 2002, among Archipelago Holdings, L.L.C., NYSE Arca and NYSE Arca Equities, as it may

be amended from time to time (“FSA”) to cease to be in full force and effect, unless each of paragraphs (C)(3)(y), (D)(2), (D)(2)(a) and (H)(3) of Article FOURTH, the third paragraph of Article EIGHTH, the penultimate paragraph of Article TENTH, Article THIRTEENTH, Article FOURTEENTH, Article FIFTEENTH, Article SIXTEENTH, Article SEVENTEENTH and Article NINETEENTH of the certificate of incorporation is amended pursuant to the terms thereof, these bylaws and applicable law, to provide that the provisions of the certificate of incorporation set forth in this paragraph shall remain in full force and effect whether or not ArcaEx remains a Facility of NYSE Arca and NYSE Arca Equities or the FSA is in full force and effect. For the avoidance of doubt, the term “Subsidiary” shall include, without limitation, NYSE Arca Holdings, Inc., NYSE Arca, NYSE Arca Equities and ArcaEx.

(d) The Board of Directors of the Corporation shall not (i) adopt any resolution pursuant to paragraph (C)(2)(y) of Article FOURTH of the certificate of incorporation to approve the exercise of voting rights in excess of the Voting Limitation (as defined in the certificate of incorporation) with respect to any Person (as defined in the certificate of incorporation) that is, or a Person that has a Related Person (as defined below) that is, an OTP Holder or OTP Firm (as defined in NYSE Arca rules, as such rules may be in effect from time to time) of NYSE Arca (any such Person that is a Related Person of an OTP Holder shall hereinafter also be deemed to be an “OTP Holder” for purposes of these bylaws and any such Person that is a Related Person of an OTP Firm shall hereinafter also be deemed to be an “OTP Firm” for purposes of these bylaws, as context may require); (ii) adopt any resolution pursuant to paragraph (C)(2)(y) of Article FOURTH of the certificate of incorporation to approve any

waiver of the Nonvoting Agreement Prohibition (as defined in the certificate of incorporation) with respect to any agreement, plan or other arrangement to which an OTP Holder or OTP Firm is a party that relates to shares of stock of the Corporation entitled to vote on any matter; and (iii) adopt any resolution pursuant to paragraph (D)(1)(a) of Article FOURTH of the certificate of incorporation that would expressly permit any OTP Holder or OTP Firm, either alone or with its related Persons, at any time, to own beneficially shares of stock of the Corporation representing in the aggregate more than 40% of the then outstanding votes entitled to be cast on any matter. For purposes of this Section 6.8(d), the term “Related Person” shall have the meaning set forth in the certificate of incorporation, and shall also include (A) in the case of a Person that is a natural person, any broker or dealer that is an OTP Holder or OTP Firm with which such natural person is associated and (B) in the case of a Person that is an OTP Holder or OTP Firm, any broker or dealer with which such OTP Holder or OTP Firm is associated.

(e) (i) In addition to the requirements of Article FOURTEENTH of the certificate of incorporation, the Corporation’s books and records shall be subject at all times to inspection and copying by NYSE Arca and NYSE Arca Equities to the extent such books and records are related to the operation and administration of NYSE Arca or NYSE Arca Equities; (ii) in addition to the requirements of Article SEVENTEENTH of the certificate of incorporation, the Corporation shall take reasonable steps necessary to cause its agents to cooperate with NYSE Arca and NYSE Arca Equities pursuant to their regulatory authority with respect to such agents’ activities related to NYSE Arca or NYSE Arca Equities; (iii) in addition to the

requirements of Article EIGHTEENTH of the certificate of incorporation, the Corporation shall take reasonable steps necessary to cause its officers, directors and employees prior to accepting a position as an officer, director or employee, as applicable, of the Corporation to consent in writing to the applicability to them of Article TENTH, Article THIRTEENTH and Article FIFTEENTH of the certificate of incorporation, as applicable, with respect to their activities related to NYSE Arca or NYSE Arca Equities; and (iv) in addition to the requirements of Article THIRTEENTH of the certificate of incorporation, the Corporation, its directors and officers, and those of its employees whose principal place of business and residence is outside the United States shall be deemed to irrevocably submit to the exclusive jurisdiction of the United States federal courts, the Securities and Exchange Commission, and NYSE Arca for the purposes of any suit, action or proceeding pursuant to the United States federal securities laws, and the rules and regulations thereunder, arising out of, or relating to, the activities of NYSE Arca or NYSE Arca Equities, and the Corporation and each such director, officer or employee, in the case of any such director, officer or employee by virtue of his acceptance of any such position, shall be deemed to waive, and agree not to assert by way of motion, as a defense or otherwise in any suit, action or proceeding, any claims that it or they are not personally subject to the jurisdiction of the Securities and Exchange Commission, that the suit, action or proceeding is an inconvenient forum or that the venue of the suit, action or proceeding is improper, or that the subject matter thereof may not be enforced in or by such courts or agency.

(f) To further the purposes of paragraph (F) of Article FOURTH of the

certificate of incorporation, the Board of Directors of the Corporation shall cause the Corporation to call promptly shares of stock of the Corporation pursuant to paragraph (D) or (E) of Article FOURTH of the certificate of incorporation, and notice of such call shall be given promptly.

(g) Sections 6.8(c), (d), (e) and (f) and this Section 6.8(g) of these bylaws may not be amended, modified or repealed unless such amendment, modification or repeal is (i) filed with and approved by the Securities and Exchange Commission pursuant to Section 19 of the Exchange Act or (ii) approved by stockholders voting not less than 80% of the then outstanding votes entitled to be cast in favor of any such amendment, modification, or repeal.