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BELLEVILLE, ILLINOIS

April 18, 2000

Mr. Dale Hardy Roberts  
Secretary/Chief Regulatory Law Judge  
Missouri Public Service Commission  
301 West High Street, Room 530  
Jefferson, City, MO 65102

**FILED<sup>2</sup>**  
**APR 19 2000**  
Missouri Public  
Service Commission  
TA-2000-665

**Re: Application for Certificate of Service Authority  
and for Competitive Classification**

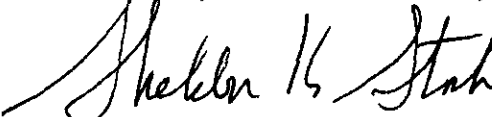
Dear Mr. Roberts,

Enclosed please find an original and fourteen (14) copies of the Application for Certificate of Service Authority to provide Basic Local Telecommunications service and for Competitive Classification filed on behalf of Pathnet, Inc. In addition, I have included an extra copy of the Application which I request be file stamped and returned to me in the enclosed self-addressed envelope.

In the event you need any additional information or have any questions concerning any of the information set forth in these Applications, please contact the undersigned.

Yours very truly,

GREENSFELDER, HEMKER & GALE, P.C.

By   
Sheldon K. Stock

SKS/sdd  
Enclosures

cc: Office of Public Counsel  
Gerard J. Waldron, Esq.

387017v1

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

FILED<sup>2</sup>

APR 19 2000

Missouri Public  
Service Commission

In the matter of the Application of )  
Pathnet, Inc. for a )  
certificate of service authority to )  
provide Basic Local Telecommunications )  
Service in portions of the State of Missouri )  
and to classify said services and )  
the company as competitive )

Case No. TA-2000-665

**APPLICATION FOR CERTIFICATE OF SERVICE AUTHORITY  
AND FOR COMPETITIVE CLASSIFICATION**

Comes now Pathnet, Inc. (Applicant or Pathnet), by its undersigned counsel, and hereby applies pursuant to Sections 392.361, 392.420, and 392.430 RSMo 1994, 392.410, 392.450 RSMo Supp. 1996, the federal Telecommunications Act of 1996, and 4 CSR 240-2.060, for authority to provide basic local telecommunications service in portions of the State of Missouri and to classify said service and company as competitive. In support of this application, Pathnet states as follows:

1. Applicant's name and principal place of business are:

Pathnet, Inc.  
11720 Sunrise Valley Drive  
Reston, VA 20191  
(703) 390-1000  
(877) PATHNOC

2. Applicant is a corporation duly organized and existing under and by virtue of the laws of the State of Delaware. A copy of Applicant's Articles of Incorporation, as amended, and a copy of Applicant's certificate of authority to transact business in Missouri are attached hereto as **Appendix A** and **Appendix B**, respectively.

3. All inquiries, correspondence, communications, pleadings, notices, orders and decisions relating to the case should be addressed to:

Gerard J. Waldron  
Covington & Burling  
1201 Pennsylvania Ave., N.W.  
Washington, DC 20004-2401  
Telephone: 202-662-5360  
Facsimile: 202-778-5360  
E-mail: [gwaldron@cov.com](mailto:gwaldron@cov.com)

OR

Sheldon K. Stock  
MBE 18581  
Greensfelder, Hemker & Gale, P.C.  
2000 Equitable Building  
10 South Broadway  
St. Louis, MO 63102  
(314) 241-9090  
(314) 241-8624 (fax)  
E-mail: [sks@greensfelder.com](mailto:sks@greensfelder.com)

Applicant's in-house contact person for inquiries concerning the case is:

Mary McDermott  
Senior Vice President, General Counsel and Secretary  
Pathnet, Inc.  
11720 Sunrise Valley Drive  
Reston, VA 20191  
(703) 390-1000  
(877) PATHNOC

4. Pathnet proposes to provide basic local exchange telecommunications service on a facilities and resold basis, throughout all exchanges currently served by the incumbent local exchange telecommunications companies of Southwestern Bell Telephone Company (SWBT), Sprint/United Telephone Company (United), and GTE Midwest, Inc. The specific SWBT, United and GTE exchanges within which Applicant proposes to offer service are listed in the

incumbent providers' respective local exchange tariffs. Applicant may seek authority to provide this service in other areas of the state in a subsequent proceeding.

5. Pursuant to this application, Applicant seeks authority to offer and provide all forms of basic local telecommunications services, including (1) data services such as digital subscriber line (xDSL) services; and (2) exchange services consisting of link and extended link (including transport) services connecting other telecommunications providers' switches to their end users. Applicant will provide the proposed services through its own facilities or in combination with facilities purchased or leased from other facilities-based telecommunications providers. Applicant does not intend to provide dial tone or operator service at this time, but reserves the right to do so in the future.

6. Pathnet possesses the technical and managerial expertise and experience necessary to provide the services it proposes. Descriptions of backgrounds of Pathnet's management, which demonstrate extensive experience and expertise in the telecommunications industry, are attached hereto and incorporated herein by reference as **Appendix C**. Pathnet also possesses the necessary financial resources to provide the proposed services. As evidence thereof, Pathnet attaches hereto and incorporates by reference its most recent Form 10-K annual report filed with the Securities and Exchange Commission (**Appendix D**) and a projected balance sheet as of December 31, 2000 and an operating budget summarizing Pathnet's projected cash flow for the Year 2000 (**Appendix E**).

7. Pathnet seeks classification of itself and its services as competitive.

8. Pathnet will offer basic local telecommunications service as a separate and distinct service in accordance with applicable law. To the extent applicable to Pathnet's proposed services, Applicant will give consideration to equitable access for all Missourians, regardless of

where they might reside or their income, to affordable telecommunications services in Applicant's proposed service areas in accordance with applicable law.

9. Pathnet is willing to comply with all applicable Commission rules and is willing to meet all relevant service standards, including, but not limited to, billing, quality of service , and tariff filing and maintenance. Consistent with the Commission's treatment of other certificated competitive local exchange telecommunications companies, Pathnet requests that the following statutes and regulations be waived for Pathnet and its basic local exchange service offerings:

Statutes:

392.210.2	Uniform System of Accounts
392.270	Ascertain property values
392.280	Depreciation Accounts
392.290.1	Issuance of Securities
392.300.2	Acquisition of Stock
392.310	Issuance of Stock and Debt
392.320	Stock Dividend Payment
392.330	Issuance of Securities, Debts and Notes
392.340	Reorganization (s).

Commission Regulations:

4 CSR 240-10.020	Depreciation Fund Income
4 CSR 240-30.040	Uniform System of Accounts
4 CSR 240-33.040(5)	No finance or penalty fee
4 CSR 240-35	Reporting of Bypass and Customer-Specific Arrangements

The above-referenced statutes and commission rules have been waived with respect to other competitive local exchange carriers in prior cases.

In addition, Applicant further requests, pursuant to Section 392.420, RSMo (Cumm. Supp. 1994), that the Commission waive the application of the following statutes and commission rules as they relate to the regulation of Pathnet:

Statutes:

392.240(1)

Just and reasonable rates

Commission Rules:

4 CSR 240-30.010 (2) (C)	Rate schedules posted at central office
4 CSR 240-32.030 (1)(B)	Exchange boundary maps
4 CSR 240-32.030 (1)(C)	Record of access lines
4 CSR 240-32.030(2)	Records kept within state
4 CSR 240-32.030(3)	Keep tariffs and maps at public business office
4 CSR 240-32.050(4)-(6)	Telephone directories
4 CSR 240-32.070(4)	Coin telephones
4 CSR 240-33.030	Inform customers of lowest price

Granting the requested waivers would be appropriate and would not harm the public interest because Applicant is a foreign corporation that does business on a national basis and because Applicant does not intend to offer dial tone services to end users at this time. If, in the future, Applicant decides to provide dial tone and/or operator service in Missouri, it will re-submit a request for application of the above statutes and rules consistent with the waivers granted to other competitive providers of dial tone service in the State of Missouri.

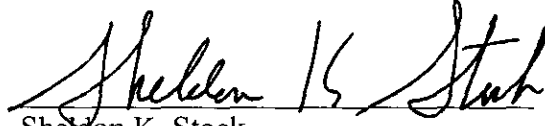
10. Pathnet further requests a temporary waiver of 4 CSR 240-2.060(4)(H). This rule requires that an application for a certificate of service authority to provide interexchange, local exchange or basic local exchange service shall include a proposed tariff with a forty-five day effective date. Pathnet finds it impossible at this time to develop tariffs to fully comply with this rule since Pathnet has not yet executed or received Commission approval of any interconnection and/or resale agreements with the incumbent local exchange companies in Missouri. At such time as all facts necessary for the development of such tariffs are known to Pathnet, it will promptly file said tariffs bearing no less than a 30 day effective date with the Commission in a manner consistent with recent Commission practice in similar cases.

11. Applicant is willing to comply with all applicable Commission rules and is willing to meet all relevant service standards, including but not limited to, quality of service, billing, and tariff filing and maintenance, except to the extent that those rules are specifically waived by the Commission pursuant to a request filed by Pathnet.

12. Pathnet submits that the public interest will be served by Commission approval of this application because Pathnet's proposed services will create and enhance competition and expand customer service options consistent with the legislative goals set forth in the federal Telecommunications Act of 1996 and Chapter 392 RSMo. Prompt approval of this application will also expand the availability of innovative, high quality, and reliable telecommunications services within the State of Missouri. Although Applicant, at this time, does not plan to provide service directly to residential users, the services Applicant plans to offer as a carrier's carrier will assist other carriers in providing competitive services to end users throughout the State of Missouri.

**WHEREFORE**, Pathnet, Inc. respectfully requests that the Missouri Public Service Commission grant it a certificate of service authority to provide basic local telecommunications services as herein requested, classify Pathnet and its proposed services as competitive, and grant a waiver of the aforesaid statutes and regulations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Sheldon K. Stock", written over a horizontal line.

Sheldon K. Stock

MBE 18581

Greensfelder, Hemker & Gale, P.C.

2000 Equitable Building

10 South Broadway

St. Louis, MO 63102

(314) 241-9090

(314) 241-8624 (fax)

Gerard J. Waldron

Mary Newcomer Williams

Covington & Burling

1201 Pennsylvania Avenue, N.W.

Washington, D.C. 20004-2401

(202) 662-5360

(202) 778-5360 (fax)

*Attorneys for Pathnet, Inc.*

Dated: April 18, 2000



**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**


In the matter of the Application of )  
Pathnet, Inc. for a )  
certificate of service authority to )  
provide Basic Local Telecommunications )  
Service in portions of the State of Missouri )  
and to classify said services and )  
the company as competitive )

Case No. \_\_\_\_\_

**VERIFICATION**

DISTRICT )  
OF ) SS.  
COLUMBIA )

The undersigned, being under oath, says that he has read the foregoing Application and  
has personal knowledge that the facts in it are true.

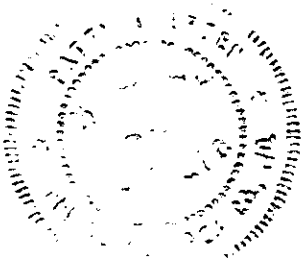
  
Mary McDermott  
Senior Vice President, General Counsel and  
Secretary of Pathnet, Inc.

Signed and sworn before me this 12th day of April, 2000 by Mary McDermott.

My commission expires: \_\_\_\_\_

PATTY O'BRIEN  
NOTARY PUBLIC STATE OF MARYLAND  
My Commission Expires August 1, 2001

(SEAL)



  
Notary Public

**APPLICATION OF PATHNET, INC.  
FOR A CERTIFICATE OF SERVICE AUTHORITY TO PROVIDE  
BASIC LOCAL TELECOMMUNICATIONS SERVICE IN MISSOURI  
AND FOR COMPETITIVE CLASSIFICATION**

**APPENDIX**

## **INDEX TO APPENDIX**

<b>Appendix A</b>	Articles of Incorporation
<b>Appendix B</b>	Certificate of Authority to Transact Business
<b>Appendix C</b>	Managerial and Technical Qualifications
<b>Appendix D</b>	SEC Form 10-K (Dec. 31, 1999)
<b>Appendix E</b>	Projected Balance Sheet and Year 2000 Operating Budget

**APPENDIX A**  
**Articles of Incorporation**

State of Delaware  
**Office of the Secretary of State**      PAGE 1

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I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "PATNET, INC.", FILED IN THIS OFFICE ON THE EIGHTH DAY OF DECEMBER, A.D. 1998, AT 9 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



Edward J. Freel, Secretary of State

2533940 8100

981470391

AUTHENTICATION: 9446961

DATE: 12-08-98

CERTIFICATE OF AMENDMENT  
OF  
RESTATED CERTIFICATE OF INCORPORATION  
OF  
PATHNET, INC.

*Adopted in accordance with the provisions of Section 242 of  
the General Corporation Law of the State of Delaware*

We, William R. Smedberg, V, Vice President, Finance and Corporate Development, and Michael A. Lubin, Vice President, General Counsel and Secretary, of Pathnet, Inc., a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware (the "Corporation"), DO HEREBY CERTIFY as follows:

FIRST: The Restated Certificate of Incorporation of the Corporation is hereby amended by deleting the current Section 10 thereof in its entirety and renumbering Section 11 as new Section 10.

SECOND: This Amendment has been duly adopted in accordance with the provisions of Section 242 of the General Corporation Law of the State of Delaware.

IN WITNESS WHEREOF, the Corporation has caused this Certificate to be signed by William R. Smedberg, V, Vice President, Finance and Corporate Development, and attested to by Michael A. Lubin, Vice President, General Counsel and Secretary, on this 8th day of December, 1998.

PATHNET, INC.

By: William R. Smedberg, V  
William R. Smedberg, V  
Vice President,  
Finance and Corporate Development

ATTEST

By: Michael A. Lubin  
Michael A. Lubin  
Vice President,  
General Counsel and Secretary

CERTIFICATE OF AMENDMENT  
OF  
RESTATED CERTIFICATE OF INCORPORATION  
OF  
PATHNET, INC.

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PATHNET, INC.

By: William R. Smedberg, V  
William R. Smedberg, V  
Vice President,  
Finance and Corporate Development

ATTEST

By: Michael A. Lubin

Michael A. Lubin  
Vice President,  
General Counsel and Secretary

State of Delaware  
Office of the Secretary of State

---

PAGE 1

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE RESTATED CERTIFICATE OF "PATENET, INC.", FILED IN THIS OFFICE ON THE TWELFTH DAY OF AUGUST, A.D. 1998, AT 9 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



A handwritten signature in cursive script, reading "Edward J. Freel", is written over a horizontal line.

Edward J. Freel, Secretary of State

2533940 8100

981316829

AUTHENTICATION:

9250282

DATE:

08-12-98



AMENDED AND RESTATED CERTIFICATE OF INCORPORATION  
OF  
PATHNET, INC.

Pathnet, Inc., a corporation duly incorporated under the laws of the State of Delaware, hereby certifies as follows:

**FIRST:** The name of the corporation is Pathnet, Inc. (the "Corporation"). The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on 25th day of August, 1995, under the name PathNet, Inc.

**SECOND:** This Amended and Restated Certificate of Incorporation has been duly adopted in accordance with Sections 242 and 245 of the Delaware General Corporation Law (the "General Corporation Law").

**THIRD:** This Amended and Restated Certificate of Incorporation hereby restates, integrates and amends the Certificate of Incorporation, as amended, of the Corporation as follows:

1. **Name.** The name of the corporation is PATHNET, INC. (the "Corporation").
2. **Address: Registered Office and Agent.** The address of the Corporation's registered office is 1013 Centre Road, Wilmington, New Castle County, Delaware 19805. The name of its registered agent at such address is The Prentice-Hall Corporation System, Inc.
3. **Purpose.** The purpose of the Corporation is to engage in, carry on and conduct any lawful act or activity for which corporations may be organized under the General Corporation Law.
4. **Number of Shares.** The total number of shares of stock that the Corporation shall have authority to issue is 75,470,595, divided as follows: 10,000,000 shares of Preferred Stock, par value of \$0.01 per share (the "Preferred Stock"), 1,000,000 shares of Series A Convertible Preferred Stock, par value of \$0.01 per share (the "Series A Preferred Stock"), 1,651,046 shares of Series B Convertible Preferred Stock, par value of \$0.01 per share (the "Series B Preferred Stock"), 2,819,549 shares of Series C Convertible Preferred Stock, par value of \$0.01 per share (the "Series C Preferred Stock," and together with the Series A Preferred Stock and the Series B Preferred Stock, the "Series Preferred Stock"); and 60,000,000 shares of Common Stock, par value of \$0.01 per share (the "Common Stock").

5. Designation of Classes: Relative Rights, Etc. The designation, relative rights, preferences and limitations of the shares of each class are as follows:

5.1 Preferred Stock. The shares of Preferred Stock may be issued from time to time in one or more series of any number of shares, provided that the aggregate number of shares issued and not canceled of any and all such series shall not exceed the total number of shares of Preferred Stock hereinabove authorized, and with such powers, preferences and rights and qualifications, limitations or restrictions thereof, and such distinctive serial designations, all as shall hereafter be stated and expressed in the resolution or resolutions providing for the issue of such shares of Preferred Stock from time to time adopted by the Board of Directors of the Corporation (the "Board of Directors") pursuant to authority so to do which is hereby vested in the Board of Directors. Each series of shares of Preferred Stock (a) may have such voting rights or powers, full or limited, or may be without voting rights or powers; (b) may be subject to redemption at such time or times and at such prices; (c) may be entitled to receive dividends (which may be cumulative or non-cumulative) at such rate or rates, on such conditions and at such times, and payable in preference to, or in such relation to, the dividends payable on any other class or classes or series of stock; (d) may have such rights upon the voluntary or involuntary liquidation, winding up or dissolution of, or upon any distribution of the assets of, the Corporation; (e) may be made convertible into or exchangeable for, shares of any other class or classes or of any other series of the same or any other class or classes of stock of the Corporation at such price or prices or at such rates of exchange and with such adjustments; (f) may be entitled to the benefit of a sinking fund to be applied to the purchase or redemption of shares of such series in such amount or amounts; (g) may be entitled to the benefit of conditions and restrictions upon the creation of indebtedness of the Corporation or any subsidiary, upon the issue of any additional shares (including additional shares of such series or of any other series) and upon the payment of dividends or the making of other distributions on, and the purchase, redemption or other acquisition by the Corporation or any subsidiary of, any outstanding shares of the Corporation and (h) may have such other relative, participating, optional or other special rights, qualifications, limitations or restrictions thereof; all as shall be stated in said resolution or resolutions providing for the issue of such shares of Preferred Stock. Any of the voting powers, designations, preferences, rights and qualifications, limitations or restrictions of any such series of Preferred Stock may be made dependent upon facts ascertainable outside of the resolution or resolutions providing for the issue of such Preferred Stock adopted by the Board of Directors pursuant to the authority vested in it by this Section 5.1, provided that the manner in which such facts shall operate upon the voting powers, designations, preferences, rights and qualifications, limitations or restrictions of such series of Preferred Stock is clearly and expressly set forth in the resolution or resolutions providing for the issue of such Preferred Stock. The term "facts" as used in the next preceding sentence shall have the meaning given to it in Section 151(a) of the General Corporation Law. Shares of Preferred Stock of any series that have been redeemed (whether through the operation of a sinking fund or otherwise) or that if

convertible or exchangeable, have been converted into or exchanged for shares of any other class or classes shall have the status of authorized and unissued shares of Preferred Stock undesignated as to series and may be reissued as a part of the series of which they were originally a part or as part of a new series of shares of Preferred Stock to be created by resolution or resolutions of the Board of Directors or as part of any other series of shares of Preferred Stock, all subject to the conditions or restrictions on issuance set forth in the resolution or resolutions adopted by the Board of Directors providing for the issue of any series of shares of Preferred Stock.

**5.2 Common Stock.** Subject to the provisions of any applicable law or of the Bylaws of the Corporation, as from time to time amended (the "Bylaws"), with respect to the closing of the transfer books or the fixing of a record date for the determination of stockholders entitled to vote and except as otherwise provided herein with respect to any shares of Series Preferred Stock, by law or by the resolution or resolutions providing for the issue of any series of shares of Preferred Stock, the holders of outstanding shares of Common Stock shall exclusively possess voting power for the election of directors and for all other purposes, each holder of record of shares of Common Stock being entitled to one vote for each share of Common Stock standing in his or her name on the books of the Corporation. Except as otherwise provided herein with respect to any shares of Series Preferred Stock or by the resolution or resolutions providing for the issue of any series of shares of Preferred Stock, the holders of shares of Common Stock shall be entitled, to the exclusion of the holders of shares of Preferred Stock of any and all series, to receive such dividends as from time to time may be declared by the Board of Directors. In the event of any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, after payment shall have been made to the holders of shares of any Series Preferred Stock and any Preferred Stock of the full amount to which they shall be entitled pursuant to this Amended and Restated Certificate of Incorporation or the resolution or resolutions providing for the issue of any series of shares of Preferred Stock, the holders of shares of Common Stock shall be entitled, to the exclusion of the holders of shares of Series Preferred Stock and Preferred Stock of any and all series, to share, ratably according to the number of shares of Common Stock held by them, in all remaining assets of the Corporation available for distribution to its stockholders.

### **5.3 Series Preferred Stock.**

#### **5.3.1 Shares.**

(a) **Authorized Shares.** The Corporation shall have authority to issue Five Million Four Hundred Seventy Thousand Five Hundred Ninety-Five (5,470,595) shares of Series Preferred Stock, of which One Million (1,000,000) shares shall be designated the Series A Preferred Stock, One Million Six Hundred Fifty One Thousand Forty Six (1,651,046) shares shall be designated the Series B Preferred Stock and Two Million Eight Hundred Nineteen Thousand Five

Hundred Forty-Nine (2,819,549) shares shall be designated as the Series C Preferred Stock.

(b) Dividends. The holders of the Series Preferred Stock shall be entitled to receive, out of funds legally available therefor, dividends (other than dividends paid in additional shares of Common Stock) in preference to and at the same rate as dividends are paid with respect to the Common Stock (treating each share of Series Preferred Stock as being equal to the number of shares of Common Stock into which each such share of Series Preferred Stock could be converted pursuant to the provisions of Section 5.3.4 hereof, with such number determined as of the record date for the determination of holders of Common Stock entitled to receive such dividend).

### 5.3.2 Liquidation, Dissolution or Winding Up.

(a) Distributions to Holders of Series Preferred Stock. In the event of any liquidation, dissolution or winding up of the Corporation, whether voluntary or involuntary, the Series A Preferred Stock, the Series B Preferred Stock and the Series C Preferred Stock shall rank on a parity with each other and shall rank prior to the Common Stock or any class of stock ranking junior to the Series Preferred Stock. Upon such liquidation, holders of each share of Series Preferred Stock outstanding shall be entitled to be paid, out of the assets of the Corporation available for distribution to stockholders and before any payment shall be made to the holders of any class of Common Stock or of any stock ranking on liquidation junior to the Series Preferred Stock, an amount in cash equal to the original purchase price paid by such holder for each such share of Series Preferred Stock held (appropriately adjusted for stock splits, stock dividends and the like) plus any declared but unpaid dividends thereon. If upon any liquidation, dissolution or winding up of the Corporation, the assets to be distributed to the holders of the Series Preferred Stock under the foregoing sentence shall be insufficient to permit payment to such stockholders of the full preferential amounts aforesaid, then all of the assets of the Corporation available for distribution to such holders under such sentence shall be distributed among the holders of Series Preferred Stock, pro rata in accordance with the total amount of preference which would have been payable to such holders if funds had been available to pay the full preference under the previous sentence. After such payment shall have been made in full to such holders of Series Preferred Stock, or funds necessary for such payment shall have been set aside by the Corporation in trust for the account of such holders so as to be available for such payment, the holders of the outstanding shares of Common Stock and any class of stock ranking junior to the Series Preferred Stock shall share ratably in the distribution of the remaining assets and funds of the Corporation available for distribution to shareholders.

(b) Deemed Liquidations. In the case of (i) a consolidation or merger of the Corporation (other than a consolidation or merger upon

consummation of which the holders of voting securities of the Corporation immediately prior to such transaction, continue to own directly or indirectly not less than a majority of the voting power of the surviving corporation) or a sale of all or substantially all of the assets of the Corporation or other similar transaction and (ii) either receipt by the Corporation of (x) consideration less than the equivalent of \$1.00 per share (appropriately adjusted for stock splits, stock dividends and the like) of Series A Preferred Stock plus any declared but unpaid dividends, (y) consideration less than the equivalent of \$3.28 per share (appropriately adjusted for stock splits, stock dividends and the like) of Series B Preferred Stock plus any declared but unpaid dividends, or (z) consideration less than the equivalent of \$10.64 per share (appropriately adjusted for stock splits, stock dividends and the like) of Series C Preferred Stock plus any declared but unpaid dividends, such event shall be regarded, at the option of the holders of a majority of the then outstanding shares of Series Preferred Stock, as a liquidation, dissolution or winding up of the affairs of the Corporation within the meaning of this Section 5.3.2.

Notwithstanding the foregoing, each holder of Series Preferred Stock shall have the right to elect the benefits of the provisions of Section 5.3.4(h) hereof in lieu of receiving payment in liquidation, dissolution or winding up of the Corporation pursuant to this Section 5.3.2(b). For purposes of this Section 5.3.2 and Section 5.3.6 hereof, a sale of substantially all of the assets of the Corporation shall mean (x) the sale or other disposition other than in the ordinary course of business of more than 50% of such assets, as determined by reference to either (A) the book value or (B) the fair market value, of such assets, or (y) any issuance of Common Stock by the Corporation or transfer of Common Stock by the holder thereof to any person or persons acting in concert or a group of affiliated persons, which issuance or transfer results in such person or persons or group holding in the aggregate more than 50% of the issued and outstanding Common Stock after giving effect to such issuance or transfer.

(c) Non-Cash Distributions. In the event of a liquidation, dissolution or winding up of the Corporation resulting in the availability of assets other than cash for distribution to the holders of the Series Preferred Stock, the holders of the Series Preferred Stock shall be entitled to a distribution of cash and/or assets equal in value to the liquidation preference and other distribution rights stated in Section 5.3.2(a) and Section 5.3.2(b) hereof. In the event that such distribution to the holders of the Series Preferred Stock shall include any assets other than cash, the following provisions shall govern. The Board of Directors shall first determine the value of such assets for such purpose, and shall notify all holders of shares of Series Preferred Stock of such determination. The value of such assets for purposes of the distribution under this Section 5.3.2(c) shall be the value as determined by the Board of Directors in good faith and with due care, unless the holders of a majority of the outstanding shares of Series Preferred Stock shall object thereto in writing within 15 days after the date of such notice. In the event of such objection, the valuation of such assets for purposes of such distribution shall be

determined by an arbitrator selected by the objecting stockholders and the Board of Directors, or in the event a single arbitrator cannot be agreed upon within 10 days after the written objection sent by the objecting stockholders in accordance with the previous sentence, the valuation of such assets shall be determined by arbitration in which (i) the objecting stockholders shall name in their notice of objection one arbitrator, (ii) the Board of Directors shall name a second arbitrator within 15 days from the receipt of such notice, (iii) the two arbitrators thus selected shall select a third arbitrator within 15 days thereafter, and (iv) the three arbitrators thus selected shall determine the valuation of such assets within 15 days thereafter for purposes of such distribution by majority vote. The costs of such arbitration shall be borne by the Corporation or by the holders of the Series Preferred Stock (on a pro rata basis out of the assets otherwise distributable to them) as follows: (i) if the valuation as determined by the arbitrators is greater than 95% of the valuation as determined by the Board of Directors, the holders of the Series Preferred Stock shall pay the costs of the arbitration, and (ii) otherwise, the Corporation shall bear the costs of the arbitration.

### 5.3.3 Voting Rights.

(a) General. Except as otherwise expressly provided herein or as required by law, the holder of each share of the Series Preferred Stock shall be entitled to vote on any matters presented to the holders of the Common Stock. Each share of Series Preferred Stock shall entitle the holder thereof to such number of votes per share as shall equal the number of shares of Common Stock into which such share of Series Preferred Stock is convertible in accordance with the terms of Section 5.3.4 hereof at the record date for the determination of stockholders entitled to vote on such matter or, if no record date is established, at the date such vote is taken or any written consent of stockholders is solicited. Except as otherwise expressly provided herein (including, without limitation, the provisions of Section 5.3.6 hereof) or as required by law, the holders of shares of Series Preferred Stock and the Common Stock shall vote together as a single class on any matters presented to the holders of the Common Stock.

### (b) Board of Directors.

(i) Investor Directors. The holders of the Series A Preferred Stock shall be entitled to vote as a class separately from all other classes of stock of the Corporation in any vote for the election of directors of the Corporation, and shall be entitled to elect by such class vote two directors (the "Series A Investor Directors"), one of which Series A Investor Directors to be designated by Spectrum Equity Investors, L.P. ("Spectrum") for so long as it owns shares of Series A Preferred Stock and thereafter by the holders of a majority of the issued and outstanding shares of Series A Preferred Stock, and the other to be designated by New Enterprise Associates VI, Limited Partnership or its affiliates (collectively, "NEA VI") for so long as it owns shares of Series A Preferred Stock

and thereafter by the holders of a majority of the issued and outstanding shares of Series A Preferred Stock. The holders of the Series B Preferred Stock shall be entitled to vote as a class separately from all other classes of stock of the Corporation in any vote for the election of directors of the Corporation, and shall be entitled to elect by such class vote one director (the "Series B Investor Director") to be designated by Grotech Capital Group IV, LLC ("Grotech IV") for so long as it owns shares of Series B Preferred Stock and thereafter by the holders of a majority of the issued and outstanding shares of Series B Preferred Stock. The holders of the Series C Preferred Stock shall be entitled to vote as a class separately from all other classes of stock of the Corporation in any vote for the election of directors of the Corporation, and shall be entitled to elect by such class vote one director (the "Series C Investor Director") to be designated by the holders of a majority of the issued and outstanding shares of Series C Preferred Stock; provided, however, that if the holders of a majority of the issued and outstanding shares of Series C Preferred Stock designate for election as the Series C Investor Director an individual who is not a partner or associate of a Series C Investor or an entity under substantially the same management as a Series C Investor, such designee shall be elected as a director only with the vote of a majority of the Common Stock Directors and Investor Directors, voting together. Initially, the Series C Investor Director will be designated by Toronto Dominion Capital (U.S.A.), Inc. In no event shall the Series C Investor Director be (i) a partner or associate of Spectrum or an entity under substantially the same management as Spectrum for so long as Spectrum has designation rights under this Section 5.5.3(a), (ii) a partner or associate of NEA VI or an entity under substantially the same management as NEA VI for so long as NEA VI has designation rights under this Section 5.3.3(a), and (iii) a partner or associate of Grotech IV or an entity under substantially the same management as Grotech IV for so long as Grotech IV has designation rights under this Section 5.3.3(a).

(ii) Common Stock Directors. For so long as any Series Preferred Stock remains outstanding, the holders of Common Stock shall be entitled to vote as a class separately from all other classes in any vote for the election of directors of the Corporation, and shall be entitled to elect by such class vote two directors (the "Common Stock Directors").

(iii) Appointment of Chief Executive Officer/Officer Director. Upon the termination or resignation of the Chief Executive Officer of the Corporation, the Corporation will select and hire a successor Chief Executive Officer (and any successor thereto) by the affirmative vote of a majority of the Common Stock Directors, the Series A Investor Directors, the Series B Investor Director and the Series C Investor Director, voting together. The Chief Executive Officer (and any replacement or successor Chief Executive Officer) as so selected and hired shall be elected to the Corporation's Board of Directors by the holders of the Series Preferred Stock and the Common Stock voting together as a single class (the "Officer Director"). David Schaeffer may serve as Chief Executive Officer of the

Corporation in the discretion of the Board of Directors, but in no event shall David Schaeffer be elected as the Officer Director.

(iv) Removal of Directors. The removal of any director of the Corporation shall be as set forth in the Bylaws of the Corporation.

(c) Special Voting Rights. The holders of the Series Preferred Stock shall be entitled to the special voting rights set forth in Section 5.3.6 hereof.

**5.3.4 Conversion.** The holders of the Series Preferred Stock shall have the following conversion rights:

(a) Right to Convert. Subject to and in compliance with the provisions of this Section 5.3.4, any shares of the Series Preferred Stock may, at any time or from time to time at the option of the holder, be converted into fully-paid and non-assessable shares of Common Stock. The number of shares of Common Stock to which a holder of the Series Preferred Stock shall be entitled upon conversion shall be the product obtained by multiplying the Applicable Conversion Rate (determined as provided in Section 5.3.4(c)) by the number of shares of Series Preferred Stock being converted.

(b) Automatic Conversion.

(i) Each share of the Series Preferred Stock outstanding shall automatically be converted into the number of shares of Common Stock into which such shares are convertible upon application of the then effective Applicable Conversion Rate (determined as provided in Section 5.3.4(c)) immediately upon the closing of an underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, or under such other applicable securities regulations covering the offer and sale of capital stock of the Corporation (other than a registration relating solely to Rule 145 under such Act (or any successor thereto) or to an employee benefit plan of the Corporation) (i) immediately prior to the consummation of which, the Corporation is valued (based on the per-share price paid in such public offering, but without regard to any proceeds to be received by the Company in connection with such offering) at greater than \$50,000,000, (ii) in which the gross proceeds received by the Corporation exceed \$20,000,000, and (iii) in which the Corporation uses a nationally recognized underwriter approved by holders of a majority in interest of the Series Preferred Stock (a "Qualified Public Offering").

(ii) Upon the occurrence of an event specified in Section 5.3.4(b)(i), the outstanding shares of Series Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the



Corporation or its transfer agent; provided, however, that the Corporation shall not be obligated to issue certificates evidencing such shares of the Common Stock unless certificates evidencing such shares of the Series Preferred Stock being converted are either delivered to the Corporation or any transfer agent, as hereinafter provided, or the holder notifies the Corporation or any transfer agent, as hereinafter provided, that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection therewith.

Upon the occurrence of the automatic conversion of all of the outstanding Series Preferred Stock, the holders of the Series Preferred Stock shall surrender the certificates representing such shares at the office of the Corporation or of any transfer agent for the Common Stock. Thereupon, there shall be issued and delivered to each such holder, promptly at such office and in his name as shown on such surrendered certificate or certificates, a certificate or certificates for the number of shares of Common Stock into which the shares of the Series Preferred Stock surrendered were convertible on the date on which such automatic conversion occurred and cash as provided in Section 5.3.4(k) below in respect of any fraction of a share of Common Stock issuable upon such automatic conversion.

(c) Applicable Conversion Rate. The conversion rate in effect at any time for the applicable series of Series Preferred Stock (the "Applicable Conversion Rate") shall equal the quotient obtained by dividing \$1.00 in the case of Series A Preferred Stock, \$3.28 in the case of Series B Preferred Stock or \$10.64 in the case of the Series C Preferred Stock by the Applicable Conversion Value, calculated as hereinafter provided.

(d) Applicable Conversion Value. The Applicable Conversion Value in effect initially, and until first adjusted in accordance with Section 5.3.4(e) or Section 5.3.4(f) hereof, shall be \$1.00 in the case of Series A Preferred Stock, \$3.28 in the case of Series B Preferred Stock and \$10.64 in the case of the Series C Preferred Stock.

(e) Adjustment for Common Stock Dividends, Subdividends and Combinations of Common Stock, Etc. Upon the happening of any of the following: (i) the issuance of additional shares of Common Stock of any class as a dividend or other distribution of outstanding Common Stock, (ii) the subdivision of outstanding shares of Common Stock of any class into a greater number of shares of Common Stock, or (iii) the combination of outstanding shares of Common Stock of any class into a smaller number of shares of Common Stock (each an "Extraordinary Common Stock Event"), the Applicable Conversion Value shall, simultaneously with the happening of such Extraordinary Common Stock Event, be adjusted by dividing the then effective Applicable Conversion Value by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding (excluding treasury stock) immediately after such Extraordinary Common Stock Event and the

denominator of which shall be the number of shares of Common Stock outstanding (excluding treasury stock) immediately prior to such Extraordinary Common Stock Event, and the quotient so obtained shall thereafter be the Applicable Conversion Value. The Applicable Conversion Value, as so adjusted, shall be readjusted in the same manner upon the happening of any successive Extraordinary Common Stock Event or Events.

(f) Adjustments for Diluting Issues.

(i) Except as provided in Section 5.3.4(e) above or for Excluded Shares (as defined below), if the Corporation shall issue any additional shares of Common Stock of any class for no consideration or at a price per share less than the Applicable Conversion Value in effect for each applicable series of Series Preferred Stock immediately prior to such issuance or sale, then in each such case such Applicable Conversion Value shall be reduced to such lower price.

For purposes of this Section 5.3.4(f), "Excluded Shares" shall mean (i) shares issued or delivered from treasury or stock options (and shares of Common Stock issued upon the exercise thereof) granted by the Corporation, with the approval of the Board of Directors, to directors, officers, employees, agents or consultants of the Corporation for up to an aggregate of 1,325,212 shares of the Common Stock (as adjusted for stock splits, stock dividends and the like); (ii) warrants to purchase shares of Common Stock (and any shares of Common Stock issued upon the exercise thereof) issued by the Corporation in connection with the Corporation's offering of units, each such unit consisting of \$1,000 principal amount at maturity of Senior Notes due 2008 (the "Notes") of the Corporation and warrants to purchase shares of Common Stock; and (iii) warrants to purchase shares of Common Stock (and any shares of Common Stock issued upon the exercise thereof) issued by the Corporation in connection with the credit facilities among the Corporation and/or its subsidiaries, its equipment vendors and certain other senior lenders.

For purposes of this Section 5.3.4(f), if a part or all of the consideration received by the Corporation in connection with the issuance of shares of the Common Stock or the issuance of any of the securities described below in paragraph (ii) of this Section 5.3.4(f) consists of property other than cash, such consideration shall be deemed to have the same value as is determined by the Corporation's Board of Directors with respect to receipt of such property so long as such determination was made reasonably and in good faith, and shall otherwise be deemed to have a value equal to its fair market value.

(ii) For the purpose of this Section 5.3.4(f), the issuance of any warrants, options or other subscription or purchase rights with respect to shares of Common Stock of any class and the issuance of any securities convertible into shares of Common Stock of any class (or the issuance of any

warrants, options or any rights with respect to such convertible securities) shall be deemed an issuance at such time of such Common Stock if the Net Consideration Per Share which may be received by the Corporation for such Common Stock (as hereinafter determined) shall be less than the Applicable Conversion Value at the time of such issuance and, except as hereinafter provided, an adjustment in the Applicable Conversion Value shall be made upon each such issuance in the manner provided in paragraph (i) of this Section 5.3.4(f) as if such Common Stock were issued at such Net Consideration Per Share. No adjustment of the Applicable Conversion Value shall be made under this Section 5.3.4(f) upon the issuance of any additional shares of Common Stock which are issued pursuant to the exercise of any warrants, options or other subscription or purchase rights or pursuant to the exercise of any conversion or exchange rights in any convertible securities if any adjustment shall previously have been made upon the issuance of such warrants, options or other rights. Any adjustment of the Applicable Conversion Value with respect to this paragraph (ii) of this Section 5.3.4(f) shall be disregarded if, as and when the rights to acquire shares of Common Stock upon exercise or conversion of the warrants, options, rights or convertible securities which gave rise to such adjustment expire or are canceled without having been exercised, so that the Applicable Conversion Value effective immediately upon such cancellation or expiration shall be equal to the Applicable Conversion Value in effect immediately prior to the time of the issuance of the expired or canceled warrants, options, rights or convertible securities, with such additional adjustments as would have been made to that Applicable Conversion Value had the expired or canceled warrants, options, rights or convertible securities not been issued; provided, however, that no such readjustment of the Applicable Conversion Value shall have the effect of increasing the Applicable Conversion Value to an amount which exceeds the lower of (x) the Applicable Conversion Value on the original adjustment date, or (y) the Applicable Conversion Value that would have resulted from any issuance of any additional shares of Common Stock pursuant to such warrants, options, rights or convertible securities between the original adjustment date and such readjustment date. In the event that the terms of any warrants, options, other subscription or purchase rights or convertible securities previously issued by the Corporation are changed (whether by their terms or for any other reason) so as to change the Net Consideration Per Share payable with respect thereto (whether or not the issuance of such warrants, options, rights or convertible securities originally gave rise to an adjustment of the Applicable Conversion Value), the Applicable Conversion Value shall be recomputed as of the date of such change, so that the Applicable Conversion Value effective immediately upon such change shall be equal to the Applicable Conversion Value in effect at the time of the issuance of the warrants, options, rights or convertible securities subject to such change, adjusted for the issuance thereof in accordance with the terms thereof after giving effect to such change, and with such additional adjustments as would have been made to that Applicable Conversion Value had the warrants, options, rights or convertible securities been issued on such changed terms. For purposes of this paragraph (ii), the Net Consideration Per Share which may be received by the Corporation shall be determined as follows:

(A) The Net Consideration Per Share shall mean the amount equal to the total amount of consideration, if any, received by the Corporation for the issuance of such warrants, options, rights or convertible securities, plus the minimum amount of consideration, if any, payable to the Corporation upon exercise or conversion thereof, divided by the aggregate number of shares of Common Stock that would be issued if all such warrants, options, subscriptions, or other purchase rights or convertible securities were exercised or converted at such net consideration per share.

(B) The Net Consideration Per Share which may be received by the Corporation shall be determined in each instance as of the date of issuance of warrants, options, rights or convertible securities without giving effect to any possible future price adjustments or rate adjustments which may be applicable with respect to such warrants, options, rights or convertible securities and which are contingent upon future events; provided that in the case of an adjustment to be made as a result of a change in terms of such warrants, options, rights or convertible securities, the Net Consideration Per Share shall be determined as of the date of such change.

(g) Adjustments for Reclassification. If the Common Stock issuable upon the conversion of the Series Preferred Stock shall be changed into the same or different number of shares of any class or classes of stock, whether by reclassification or otherwise (other than an Extraordinary Common Stock Event, or a reorganization, merger, consolidation or sale of assets provided for elsewhere in this Section 5.3.4), then and in each such event the holder of each share of Series Preferred Stock shall have the right thereafter to convert such share into the kind and amount of shares of stock and other securities and property receivable upon such reorganization, reclassification or other change by holders of the number of shares of Common Stock into which such shares of Series Preferred Stock might have been converted immediately prior to such reorganization, reclassification or change, all subject to further adjustment as provided herein. Without limiting the generality of the foregoing, the Applicable Conversion Rate, as defined in this Section 5.3.4, in respect of such other shares or securities so receivable upon conversion of shares of Series Preferred Stock shall thereafter be adjusted, and shall be subject to further adjustment from time to time, in a manner and on terms as nearly equivalent as practicable to the provisions with respect to Common Stock contained in this Section 5.3.4, and the remaining provisions herein with respect to the Common Stock shall apply on like or similar terms to any such other shares or securities.

(h) Adjustments for Reorganizations. If at any time or from time to time there shall be a capital reorganization of the Common Stock (other than a subdivision, combination, reclassification or exchange of shares provided for elsewhere in this Section 5.3.4) or a merger or consolidation of the Corporation with or into another corporation or the sale of all or substantially all of the Corporation's properties and assets to any other person, then, as a part of and as a

condition to the effectiveness of such reorganization, merger, consolidation or sale, lawful and adequate provision shall be made so that if the Corporation is not the surviving corporation, the Series Preferred Stock shall be converted into preferred stock of the surviving corporation having equivalent preferences, rights and privileges except that in lieu of being able to convert into shares of Common Stock of the Corporation or the successor corporation the holders of the Series Preferred Stock (including any such preferred stock issued upon conversion of the Series Preferred Stock) shall thereafter be entitled to receive upon conversion of the Series Preferred Stock (including any such preferred stock issued upon conversion of the Series Preferred Stock) the number of shares of stock or other securities or property of the Corporation or of the successor corporation resulting from such merger or consolidation or sale, to which a holder of the number of shares of Common Stock deliverable upon conversion of the Series Preferred Stock immediately prior to the capital reorganization, merger, consolidation or sale would have been entitled on such capital reorganization, merger, consolidation, or sale. In any such case, appropriate provisions shall be made with respect to the rights of the holders of the Series Preferred Stock (including any such preferred stock issued upon conversion of the Series Preferred Stock) after the reorganization, merger, consolidation or sale to the end that the provisions of this Section 5.3.4 (including, without limitation, provisions for adjustment of the Applicable Conversion Value and the number of shares purchasable upon conversion of the Series Preferred Stock or such preferred stock) shall thereafter be applicable, as nearly as may be, with respect to any shares of stock, securities or assets to be deliverable thereafter upon the conversion of the Series Preferred Stock or such preferred stock.

Each holder of Series Preferred Stock upon the occurrence of a capital reorganization, merger or consolidation of the Corporation or the sale of all or substantially all of its assets and properties as such events are more fully set forth in the first paragraph of this Section 5.3.4(h), shall have the option of electing treatment of his shares of Series Preferred Stock under either this Section 5.3.4(h) or Section 5.3.2(b) hereof, and except as otherwise provided in said Section 5.3.2(b), notice of which election shall be submitted in writing to the Corporation at its principal offices no later than 10 days before the effective date of such event, provided that any such notice shall be effective if given not later than 15 days after the date of the Corporation's notice, pursuant to Section 5.3.8, with respect to such event.

(i) Certificate as to Adjustments. In each case of an adjustment or readjustment of the Applicable Conversion Rate, the Corporation will promptly furnish each holder of Series Preferred Stock with a certificate, prepared by the chief financial officer of the Corporation, showing such adjustment or readjustment, and stating in detail the facts upon which such adjustment or readjustment is based.

(j) Mechanics of Conversion. To exercise its conversion privilege, a holder of Series Preferred Stock shall surrender the certificate or certificates representing the shares being converted to the Corporation at its principal office, and shall give written notice to the Corporation at that office that such holder elects to convert such shares. Such notice shall also state the name or names (with address or addresses) in which the certificate or certificates for shares of Common Stock issuable upon such conversion shall be issued. The certificate or certificates for shares of Series Preferred Stock surrendered for conversion shall be accompanied by proper assignment thereof to the Corporation or in blank. The date when such written notice is received by the Corporation together with the certificate or certificates representing the shares of Series Preferred Stock being converted, shall be the "Conversion Date." As promptly as practicable after the Conversion Date, the Corporation shall issue and shall deliver to the holder of the shares of Series Preferred Stock being converted, a certificate or certificates in such denominations as it may request in writing for the number of full shares of Common Stock issuable upon the conversion of such shares of Series Preferred Stock in accordance with the provisions of this Section 5.3.4 and cash as provided in Section 5.3.4(k) below in respect of any fraction of a share of Common Stock issuable upon such conversion. Such conversion shall be deemed to have been effected immediately prior to the close of business on the Conversion Date, and at such time the rights of the holder as holder of the converted shares of Series Preferred Stock shall cease and the person or persons in whose name or names any certificate or certificates for shares of Common Stock shall be issuable upon such conversion shall be deemed to have become the holder or holders of record of shares of Common Stock represented thereby.

(k) Fractional Shares. No fractional shares of Common Stock or scrip representing fractional shares shall be issued upon conversion of Series Preferred Stock. Instead of any fractional shares of Common Stock that would otherwise be issuable upon conversion of Series Preferred Stock, the Corporation shall pay to the holder of the shares of Series Preferred Stock that were converted a cash adjustment in respect of such fraction in an amount equal to the same fraction of the market price per share of the Common Stock (as determined in a manner prescribed in good faith by the Board of Directors) at the close of business on the Conversion Date.

(l) Partial Conversion. In the event some but not all of the shares of Series Preferred Stock represented by a certificate or certificates surrendered by a holder are converted, the Corporation shall execute and deliver to or on the order of the holder, at the expense of the Corporation, a new certificate representing the number of shares of Series Preferred Stock which were not converted.

(m) Reservation of Common Stock. 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 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 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 Preferred Stock, the Corporation shall 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.

### 5.3.5 Redemption.

#### (a) Optional Redemption.

(i) Optional Redemption of Series A Preferred Stock and Series B Preferred Stock. In the event that there shall not have occurred a closing of a Qualified Public Offering (as defined in Section 5.3.4(b) hereof) prior to December 23, 2000, at the election of any holder of shares of Series A Preferred Stock or any holder of Series B Preferred Stock outstanding as of December 24, 2000, the Corporation shall redeem all (but not part) of the shares of Series A Preferred Stock and Series B Preferred Stock then held by such holder. Payment of the Series A Redemption Price (as defined below) to the holders of Series A Preferred Stock and the Series B Redemption Price (as defined below) to the holders of shares of Series B Preferred Stock, shall be made by the Corporation on January 23, 2001, for a cash price equal to the original purchase price paid by such holders for each share of Series A Preferred Stock and Series B Preferred Stock outstanding, adjusted for any stock split, combined consolidation or stock distribution or stock dividends with respect to such shares (the "Series A Redemption Price" and the "Series B Redemption Price," respectively). On or prior to December 24, 2000, the Corporation shall give written notice (the "Series A and Series B Redemption Notice") by mail, postage prepaid, to the holders of the then outstanding shares of Series A Preferred Stock and Series B Preferred Stock at the address of each such holder appearing on the books of the Corporation or given by such holder to the Corporation for the purpose of notice. Such notice shall set forth the Series A Redemption Price and the Series B Redemption Price, as the case may be, and shall further state that any holder of shares of Series A Preferred Stock or Series B Preferred Stock who intends to request redemption of its Series A Preferred Stock or Series B Preferred Stock, respectively, pursuant to this Section 5.3.5(a) must give written notice to the Corporation of its request for redemption on or before January 11, 2001. On or after January 11, 2001, each holder of shares of Series A Preferred Stock and Series B Preferred Stock who requested that such holder's shares of Series A Preferred Stock and Series B Preferred Stock be so redeemed, shall surrender the certificate or certificates evidencing such shares to the Corporation. In the case of any certificate or certificates which have been lost, stolen or destroyed, the holder of such certificate or certificates shall make and deliver an affidavit of that fact to the Corporation without the necessity of giving the Corporation a bond.

(ii) Mandatory Redemption of Series A Preferred Stock and Series B Preferred Stock. If after sending the Series A and Series B Redemption Notice, the Corporation receives requests for redemption on or prior to January 11, 2001 from the holders of at least sixty-seven percent (67%) of the Series A Preferred Stock and Series B Preferred Stock taken together, it shall give written notice by mail, postage prepaid, to the holders of Series A Preferred Stock and Series B Preferred Stock that all shares of the Series A Preferred Stock and Series B Preferred Stock then outstanding will be redeemed on January 23, 2001 (the "Series A and Series B Redemption Date") for a per share cash price equal to the Series A Redemption Price and the Series B Redemption Price, as the case may be. The notice shall further call upon such holders to surrender to the Corporation on or before the Series A and Series B Redemption Date at the place designated in the notice such holder's certificate or certificates representing the shares to be redeemed. On or after the Series A and Series B Redemption Date, each holder of shares of Series A Preferred Stock and Series B Preferred Stock called for redemption shall surrender the certificate or certificates evidencing such shares to the Corporation. In the case of any certificate or certificates which have been lost, stolen or destroyed, the holder of such certificate or certificates shall make and deliver an affidavit of that fact to the Corporation without the necessity of giving the Corporation a bond.

(iii) Optional Redemption of Series C Preferred Stock. In the event there shall not have occurred a closing of a Qualified Public Offering (as defined in Section 5.3.4(b) hereof) prior to November 3, 2001, at the election of each holder of shares of Series C Preferred Stock outstanding as of November 4, 2001, the Corporation shall redeem all (but not part) of the shares of Series C Preferred Stock then held by such holder. Payment of the applicable Series C Redemption Price (as defined below) to the holders of Series C Preferred Stock shall be made by the Corporation on December 3, 2001, for a cash price equal to the original purchase price paid by such holders for each share of Series C Preferred Stock outstanding, adjusted for any stock split, combined consolidation or stock distribution or stock dividends with respect to such shares (the "Series C Redemption Price"). On or prior to November 4, 2001, the Corporation shall give written notice (the "Series C Redemption Notice") by mail, postage prepaid, to the holders of the then outstanding shares of Series C Preferred Stock at the address of each such holder appearing on the books of the Corporation or given by such holder to the Corporation for the purpose of notice. The Series C Redemption Notice shall set forth the Series C Redemption Price and shall further state that any holder of shares of Series C Preferred Stock who intends to request redemption of its Series C Preferred Stock pursuant to this Section 5.3.5(a) must give written notice to the Corporation of its request for redemption on or before November 21, 2001. On or after December 3, 2001, each holder of shares of Series C Preferred Stock who requested that such holder's shares of Series C Preferred Stock be so redeemed, shall surrender the certificate or certificates evidencing such shares to the Corporation. In the case of any certificate or certificates which have been lost, stolen or destroyed,



the holder of such certificate or certificates shall make and deliver an affidavit of that fact to the Corporation without the necessity of giving the Corporation a bond.

(iv) Mandatory Redemption of Series C Preferred Stock. If after sending the Series C Redemption Notice, the Corporation receives requests for redemption on or prior to November 21, 2001 from the holders of at least sixty-seven percent (67%) of the Series C Preferred Stock, it shall give written notice by mail, postage prepaid, to the holders of Series C Preferred Stock that all shares of Series C Preferred Stock then outstanding will be redeemed on December 3, 2001 (the "Series C Redemption Date") for a per share cash price equal to the Series C Redemption Price. The notice shall further call upon such holders to surrender to the Corporation on or before the Series C Redemption Date at the place designated in the notice such holder's certificate or certificates representing the shares to be redeemed on or after the Series C Redemption Date, each holder of shares of Series C Preferred Stock called for redemption shall surrender the certificate or certificates evidencing such shares to the Corporation. In the case of any certificate or certificates which have been lost, stolen or destroyed, the holder of such certificate or certificates shall make and deliver an affidavit of that fact to the Corporation without the necessity of giving the Corporation a bond.

(v) Extension of Redemption Dates. Notwithstanding the foregoing clauses (i) through (iv), in the event any indebtedness under the Notes remains outstanding, the holders of shares of Series A Preferred Stock, Series B Preferred Stock and Series C Preferred Stock shall not have the right to require the Corporation to redeem any of such shares until ninety (90) days after the later of (x) the date on which such Notes shall be indefeasibly paid in full and (y) the applicable Redemption Date.

(b) Termination of Rights. From and after the Series A and Series B Redemption Date or the Series C Redemption Date (each a "Redemption Date"), as the case may be, unless there shall have been a default in payment or tender by the Corporation of the Series A Redemption Price and the Series B Redemption Price or the Series C Redemption Price (each a "Redemption Price"), as the case may be, all rights of the holders with respect to such redeemed shares of the Series Preferred Stock (except the right to receive the applicable Redemption Price upon surrender of their certificate) shall cease and such shares shall not thereafter be transferred on the books of this Corporation or be deemed to be outstanding for any purpose whatsoever.

(c) Insufficient Funds. If the funds of the Corporation legally available for redemption of shares of the Series Preferred Stock on the applicable Redemption Date are insufficient to redeem the total number of shares of Series A Preferred Stock and Series B Preferred Stock or Series C Preferred Stock, as the case may be, on such Redemption Date, the Corporation will use its best efforts to engage in a recapitalization or the sale of its business or businesses to

generate sufficient funds to redeem all of the shares of the Series A Preferred Stock and Series B Preferred Stock or the Series C Preferred Stock, as the case may be. The Corporation shall use those funds which are legally available to redeem the maximum possible number of such shares ratably among the holders of such shares to be redeemed. At any time thereafter when additional funds of the Corporation are legally available for the redemption of shares of the Series Preferred Stock, such funds will immediately be used to redeem the balance of the shares which the Corporation has become obligated to redeem on the applicable Redemption Date but which it has not redeemed at the applicable Redemption Price. If any shares of the Series Preferred Stock are not redeemed for the foregoing reason or because the Corporation otherwise failed to pay or tender to pay the aggregate applicable Redemption Price on all outstanding shares of Series Preferred Stock, all shares which have not been redeemed shall remain outstanding and entitled to all the rights and preferences provided herein, and the Corporation shall pay interest on the applicable Redemption Price for the unredeemed portion at an aggregate per annum rate equal to the greater of (i) twelve percent (12%) or (ii) the Base Rate or any similar lending rate announced from time to time by The First National Bank of Boston or any successor entity plus five percent (5%), increased, in each case, by one percent (1%) at the end of each calendar quarter thereafter. All provisions hereof are hereby expressly limited so that in no contingency or event whatsoever shall the amount paid or agreed to be paid to the holders of the Series Preferred Stock exceed the maximum amount which the holder is permitted to receive under applicable law. If fulfillment of any provision hereof shall involve exceeding such amount, then the obligation to be fulfilled shall automatically be reduced to the limit of such maximum amount. As used herein, the term "applicable law" shall mean the law in effect as of the date hereof, provided, however, that in the event that there is a change in the law which results in a higher permissible rate of interest, then these provisions shall be governed by such new law as of its effective date.

**5.3.6 Restrictions and Limitations.** The Corporation shall not without the affirmative vote or written consent of the holders of a majority of the then outstanding shares of the Series Preferred Stock:

(i) Redeem, purchase or otherwise acquire for value (or pay into or set aside for a sinking fund for such purpose), any share or shares of Series Preferred Stock other than pursuant to Section 5.3.5 hereof;

(ii) Redeem, purchase or otherwise acquire for value (or pay into or set aside for a sinking fund for such purpose) any of the Common Stock of any class or any other capital stock of the Corporation other than the Series Preferred Stock or any of the Corporation's options, warrants or convertible or exchangeable securities, except that these provisions will not prohibit the Corporation from repurchasing or redeeming any shares of capital stock from individuals and entities who have entered into stockholder agreements, stock option agreements, employment agreements or other similar agreements with the Corporation in each case

approved by a majority of the Series A Investor Directors, Series B Investor Director and Series C Investor Director under which the Corporation has the option to repurchase such shares upon the occurrence of certain events, including the termination of employment and involuntary transfers by operation of law (and their permitted transferees); provided, however, that any such agreement between such individual and the Corporation under which the Corporation has such options to repurchase, must be approved by the affirmative vote or written consent of the holders of a majority of the then outstanding Series Preferred Stock before such agreement is executed by the Corporation;

(iii) Authorize or issue, or obligate itself to issue, any other debt or equity security, other than as provided in that certain Investment and Stockholder's Agreement, by and among the Corporation and the Investors named therein, dated as of October 31, 1997 (the "Investment Agreement");

(iv) Increase or decrease (other than by conversion as permitted hereby) the total number of authorized shares of Series Preferred Stock;

(v) Pay or declare any dividend or distribution on any of its capital stock;

(vi) Authorize any merger, consolidation of the Corporation with or into any other company or entity, or authorize the reorganization or sale of the Corporation or the sale of substantially all of the assets of the Corporation;

(vii) Amend the charter documents of the Corporation or amend the Bylaws of the Corporation in any manner that adversely affects the preferences, powers, rights or privileges of the holders of Series Preferred Stock;

(viii) Authorize any reclassification or recapitalization of the outstanding capital stock of the Corporation;

(ix) Approve the annual operating budget of the Corporation;

(x) Change the composition or compensation of management of the Corporation except as provided in the Investment Agreement; or

(xi) Incur, create, assume, become or be liable in any manner with respect to, or permit to exist, any new or additional indebtedness or liability in excess of \$50,000, except as provided in the Investment Agreement.

5.3.7 No Reissuance of Series Preferred Stock. No share or shares of the Series Preferred Stock acquired by the Corporation by reason of

redemption, purchase, conversion or otherwise shall be reissued, and all such shares shall be canceled, retired, and eliminated from the shares which the Corporation shall be authorized to issue. The Corporation may from time to time take such appropriate corporate action as may be necessary to reduce the authorized number of shares of the Series Preferred Stock accordingly.

**5.3.8 Notices of Record Date.** In the event (i) the Corporation establishes a record date to determine the holders of any class of securities who are entitled to receive any dividend or other distribution, or (ii) there occurs any capital reorganization of the Corporation, any reclassification or recapitalization of the capital stock of the Corporation, any merger or consolidation of the Corporation, or any transfer of all or substantially all of the assets of the Corporation to any other company, or any other entity or person, or any voluntary or involuntary dissolution, liquidation or winding up of the Corporation, the Corporation shall mail to each holder of Series Preferred Stock at least 20 days prior to the record date specified therein, a notice specifying (a) the date of such record date for the purpose of such dividend or distribution and a description of such dividend or distribution, (b) the date on which any such reorganization, reclassification, transfer, consolidation, merger, dissolution, liquidation or winding up is expected to become effective, and (c) the time, if any, that is to be fixed, as to when the holders of record of Common Stock (or other securities) shall be entitled to exchange their shares of Common Stock (or other securities) for securities or other property deliverable upon such reorganization, reclassification, transfer, consolidation, merger, dissolution, liquidation or winding up.

**5.3.9 Other Rights.** Except as otherwise provided in this Amended and Restated Certificate of Incorporation shares of each series of the Series Preferred Stock and shares of Common Stock shall be identical in all respects (each share of Series Preferred Stock having equivalent rights to the number of shares of Common Stock into which it is then convertible), shall have the same powers, preferences and rights, without preference of any such class or share over any other such class or share, and shall be treated as a single class of stock for all purposes.

**5.3.10 Ranking.** Each series of Series Preferred Stock shall rank on a parity with the other series of Series Preferred Stock as to the distribution of assets on liquidation, dissolution and winding up of the Corporation. The Series Preferred Stock shall rank senior to the Common Stock as to the distribution of assets on liquidation, dissolution and winding up of the Corporation.

**5.3.11 Miscellaneous.**

(a) All notices referred to herein shall be in writing, and all notices hereunder shall be deemed to have been given, upon the earlier of delivery thereof by hand delivery, by courier, or by standard form of telecommunication, addressed: (i) if to the Corporation, to its principal executive

office (Attention: President) and to the transfer agent, if any, for the Series Preferred Stock or other agent of the Corporation designated as permitted hereby or (ii) if to any holder of the Series Preferred Stock or Common Stock, as the case may be, to such holder at the address of such holder as listed in the stock record books of the Corporation (which may include the records of any transfer agent for the Series Preferred Stock or Common Stock, as the case may be) or (iii) to such other address as the Corporation or any such holder, as the case may be, shall have designated by notice similarly given.

(b) The Corporation shall pay any and all stock transfer and documentary stamp taxes that may be payable in respect of any issuance or delivery of shares of Series Preferred Stock or shares of Common Stock or other securities issued on account of Series Preferred Stock pursuant hereto or certificates representing such shares or securities. The Corporation shall not, however, be required to pay any such tax which may be payable in respect of any transfer involved in the issuance or delivery of shares of Series Preferred Stock or Common Stock or other securities in a name other than that in which the shares of Series Preferred Stock with respect to which such shares or other securities are issued or delivered were registered, or in respect of any payment to any person with respect to any such shares or securities other than a payment to the registered holder thereof, and shall not be required to make any such issuance, delivery or payment unless and until the person otherwise entitled to such issuance, delivery or payment has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid or is not payable.

(c) The Corporation may appoint, and from time to time discharge and change, a transfer agent of the Series Preferred Stock. Upon any such appointment or discharge of a transfer agent, the Corporation shall send notice thereof by hand delivery, by courier, by standard form of telecommunication or by first class mail (postage prepaid), to each holder of record of the Series Preferred Stock.

5.4 Subject to the provisions of this Amended and Restated Certificate of Incorporation and except as otherwise provided by law, the stock of the Corporation, regardless of class, may be issued for such consideration and for such corporate purposes as the Board of Directors may from time to time determine.

6. Compromise, Arrangement or Reorganization. Whenever a compromise or arrangement is proposed between this Corporation and its creditors or any class of them and/or between this Corporation and its stockholders or any class of them, any court of equitable jurisdiction within the State of Delaware may, on the application in a summary way of this Corporation or of any creditor or stockholder thereof or on the application of any receiver or receivers appointed for this Corporation under the provisions of Section 291 of the General Corporation Law or on the application of trustees in dissolution or of any receiver or receivers appointed

for this Corporation under the provisions of Section 279 of General Corporation Law order a meeting of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, to be summoned in such manner as the said court directs. If a majority in number representing three-fourths in value of the creditors or class of creditors, and/or of the stockholders or class of stockholders of this Corporation, as the case may be, agree to any compromise or arrangement and to any reorganization of this Corporation as a consequence of such compromise or arrangement, the said compromise or arrangement and the said reorganization shall, if sanctioned by the court to which the said application has been made, be binding on all the creditors or class of creditors, and/or on all stockholders or class of stockholders of this Corporation, as the case may be, and also on this Corporation.

7. Limitation of Liability. No director of the Corporation shall be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (a) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) under Section 174 of the General Corporation Law or (d) for any transaction from which the director derived any improper personal benefits. If the General Corporation Law is hereafter amended to authorize corporate action further eliminating or limiting the personal liability of directors, then the Liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law, as so amended.

Any repeal or modification of the foregoing paragraph by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification.

#### 8. Indemnification.

8.1 Indemnity Undertaking. To the extent not prohibited by law, the Corporation shall indemnify any person (an "Eligible Person") who is or was made, or threatened to be made, a party to any threatened, pending or completed action, suit or proceeding (a "Proceeding"), whether civil, criminal, administrative or investigative, including, without limitation, an action by or in the right of the Corporation to procure a judgment in its favor, by reason of the fact that such person, or a person of whom such person is the legal representative, is or was a Director or officer of the Corporation, or, while a Director or officer of the Corporation, is or was serving, at the request of the Corporation, as a director or officer of any other corporation or in a capacity with comparable authority or responsibilities for any partnership, joint venture, trust, employee benefit plan or other enterprise (an "Other Entity"), against judgments, fines, penalties, excise taxes, amounts paid in settlement and costs, charges and expenses (including attorneys' fees, disbursements and other charges).

8.2 Payment of Expenses. The Corporation shall, from time to time pay to an Eligible Person the funds necessary for payment of expenses, including attorneys' fees and disbursements, incurred by or on behalf of such Eligible Person in connection with any Proceeding, as such expenses are incurred in advance of the final disposition of such Proceeding; provided, however, that, if required by the General Corporation Law, such expenses incurred by or on behalf of such Eligible Person may be paid in advance of the final disposition of a Proceeding only upon receipt by the Corporation of an undertaking, by or on behalf of such Eligible Person, to repay any such amount so advanced if it shall ultimately be determined by final judicial decision from which there is no further right of appeal that such Eligible Person is not entitled to be indemnified for such expenses.

8.3 Certain Exclusions. Section 8.1 and 8.2 shall not include any Proceeding commenced by any Eligible Person without the advance approval of the Board of Directors.

8.4 Binding Effect. The provisions of this Section 8 shall be a contract between the Corporation, on the one hand, and each Eligible Person, on the other hand, pursuant to which the Corporation and each such Eligible Person intend to be, and shall be, legally bound. No repeal or modification of this Section 8 shall affect any rights or obligations with respect to any state of facts then or theretofore existing or any proceeding theretofore or thereafter brought or threatened based in whole or in part upon any such state of facts.

8.5 Procedural Rights. The rights to indemnification and payment of expenses provided by, or granted pursuant to, this Section 8 shall be enforceable by an Eligible Person entitled to such indemnification or payment of expenses in any court of competent jurisdiction. The burden of proving that such indemnification or payment of expenses is not appropriate shall be on the Corporation. Neither the failure of the Corporation (including the disinterested Directors on its Board of Directors, a committee of such disinterested Directors, the Corporation's independent legal counsel and its stockholders) to have made a determination prior to the commencement of such action that such indemnification or payment of expenses is proper in the circumstances, nor an actual determination by the Corporation (including the disinterested Directors on its Board of Directors, a committee of such disinterested Directors, the Corporation's independent legal counsel and its stockholders) that such person is not entitled to such indemnification or payment of expenses shall constitute a defense to the action or create a presumption that such person is not so entitled. Notwithstanding anything to the contrary in Section 8.3, such Eligible Person shall also be indemnified for any expenses incurred in connection with successfully establishing his or her right to such indemnification or payment of expenses, in whole or in part, in any such proceeding.

8.6 Service Deemed at Corporation's Request. Any Director or officer of the Corporation serving (a) as a director or officer of another corporation

of which a majority of the shares entitled to vote in the election of its directors is held, directly or indirectly, by the Corporation or (b) any employee benefit plan of the Corporation or any corporation referred to in clause (a) shall be deemed to be doing so at the request of the Corporation.

8.7 Election of Applicable Law. Any person entitled to be indemnified or to payment of expenses as a matter of right pursuant to this Section 8 may elect to have the right to indemnification or payment of expenses interpreted on the basis of the applicable law in effect at the time of the occurrence of the event or events giving rise to the applicable Proceeding, to the extent permitted by law, or on the basis of the applicable law in effect at the time such indemnification or payment of expenses is sought. Such election shall be made, by a notice in writing to the Corporation, at the time indemnification or payment of expenses is sought; provided, however, that if no such notice is given, the right to indemnification or payment of expenses shall be determined by the law in effect at the time indemnification or payment of expenses is sought.

8.8 Rights Not Exclusive. The rights to indemnification and reimbursement or advancement of expenses provided by, or granted pursuant to, this Section 8 shall not be deemed exclusive of any other rights to which a person seeking indemnification or reimbursement or advancement of expenses may have or hereafter be entitled under any statute, this Restated Certificate of Incorporation, the By-laws, any agreement, any vote of stockholders or disinterested Directors or otherwise, both as to action in his or her official capacity and as to action in another capacity while holding such office.

8.9 Continuation of Benefits. The rights to indemnification and reimbursement or advancement of expenses provided by, or granted pursuant to, this Section 8 shall continue as to a person who has ceased to be a Director or officer (or other person indemnified hereunder) and shall inure to the benefit of the executors, administrators, legatees and distributees of such person.

8.10 Insurance. The Corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Corporation, or is or was serving at the request of the Corporation as a director, officer, employee or agent of an Other Entity, against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Corporation would have the power to indemnify such person against such liability under the provisions of this Section 8 or under Section 145 of the General Corporation Law or any other provision of law.

9. Directors. This Section is inserted for the management of the business and for the conduct of the affairs of the Corporation and it is expressly



provided that it is intended to be in furtherance of and not in limitation or exclusion of the powers conferred by applicable law.

9.1 Number, Election, and Terms of Office of Board of Directors. The business of the Corporation shall be managed by a Board of Directors consisting of not less than three or more than 15 members. The exact number of directors within the minimum and maximum limitations specified in the preceding sentence shall be fixed from time to time by resolution adopted by a majority of the entire Board of Directors then in office, whether or not present at a meeting. Directors need not be stockholders of the Corporation. The directors shall be divided into three classes of approximately equal size with the term of office of the first class to expire at the first annual meeting of stockholders of the Corporation next following the end of the Corporation's fiscal year ending December 31, 1998, the term of office of the second class to expire at the first annual meeting of stockholders of the Corporation next following the end of the Corporation's fiscal year ending December 31, 1999 and the term of office of the third class to expire at the annual meeting of stockholders of the Corporation next following the end of the Corporation's fiscal year ending December 31, 2000. At each annual meeting of stockholders following such initial election as specified above, directors elected to succeed those directors whose terms expire shall be elected for a term of office to expire at the third succeeding annual meeting of stockholders after their election.

Notwithstanding the foregoing, whenever, pursuant to the provisions of Section 5.1 of this Amended and Restated Certificate of Incorporation, the holders of any one or more series of Preferred Stock shall have the right, voting separately as a series or together with holders of other such series, to elect Directors at an annual or special meeting of stockholders, the election, term of office, filling of vacancies and other features of such directorships shall be governed by the terms of this Amended and Restated Certificate of Incorporation and any certificate of designations applicable thereto.

During any period when the holders of any series of Preferred Stock have the right to elect additional Directors as provided for or fixed pursuant to the provisions of this Amended and Restated Certificate of Incorporation or any certificate of designation related thereto, then upon commencement and for the duration of the period during which such right continues: (i) the then otherwise total authorized number of Directors of the Corporation shall automatically be increased by such specified number of Directors, and the holders of such Preferred Stock shall be entitled to elect the additional Directors so provided for or fixed pursuant to said provisions, and (ii) each such additional Director shall serve until such Director's successor shall have been duly elected and qualified, or until such Director's right to hold such office terminates pursuant to said provisions, whichever occurs earlier, subject to such Director's earlier death, disqualification, resignation or removal. Except as otherwise provided by the Board in the resolution or resolutions establishing such series, whenever the holders of any series of Preferred Stock having such right

to elect additional Directors are divested of such right pursuant to the provisions of such stock, the terms of office of all such additional Directors elected by the holders of such stock, or elected to fill any vacancies resulting from the death, resignation, disqualification or removal of such additional Directors, shall forthwith terminate and the total and authorized number of Directors of the Corporation shall be reduced accordingly.

9.2 Tenure. Notwithstanding any provisions to the contrary contained herein, (i) each director shall hold office until his or her successor is elected and qualified, or until the earlier of such director's death, resignation or removal and (ii) the term of any director who is also an officer of the Corporation shall terminate if he or she ceases to be an officer of the Corporation.

9.3 Newly Created Directorships and Vacancies. Subject to the rights of the holders of any series of Preferred Stock then outstanding, newly created directorships resulting from any increase in the authorized number of directors or any vacancies in the Board of Directors resulting from death, resignation, retirement, disqualification, removal from office or other cause shall be filled by a majority vote of the remaining directors then in office although less than a quorum, or by a sole remaining director and directors so chosen shall hold office for a term expiring at the annual meeting of stockholders at which the term of the class to which they have been elected expires or, in each case, until their respective successors are duly elected and qualified. No decrease in the number of directors constituting the Board of Directors shall shorten the term of any incumbent director. When any director shall give notice of resignation effective at a future date, the Board of Directors may fill such vacancy to take effect when such resignation shall become effective. In the event of a vacancy in the Board of Directors, the remaining Directors, except as otherwise provided by law, may exercise the powers of the full Board of Directors until the vacancy is filled.

9.4 Removal of Directors. Any one or more or all of the directors may be removed, at any time, but only for cause by the stockholders having at least a majority in voting power of the then issued and outstanding shares of capital stock of the Corporation.

10. Action by Stockholders. Notwithstanding the provisions of Section 228 of the General Corporation Law (or any successor statute), any action required or permitted by the General Corporation Law to be taken at any annual or special meeting of stockholders of the Corporation may be taken only at such an annual or special meeting of stockholders and cannot be taken by written consent without a meeting. At any annual meeting or special meeting of stockholders of the Corporation, only such business shall be conducted as shall have been brought before such meeting in the manner provided by the By-laws.

11. Adoption, Amendment and/or Repeal of Bylaws. The Board of Directors may from time to time adopt, amend or repeal the Bylaws, provided, however, that any Bylaws adopted or amended by the Board of Directors may be amended or repealed, and any Bylaws may be adopted, by a vote of the stockholders having at least two-thirds of the voting power of the then issued and outstanding shares of capital stock of the Corporation.

IN WITNESS WHEREOF, the undersigned has executed this Restated

Certification of Incorporation this 10th day of August, 1998.

PATNET, INC.

By: Richard A. Lubin

Richard A. Lubin  
President and Chief Executive Officer

Attest:

By: Michael A. Lubin

Michael A. Lubin  
Vice President, General Counsel and Secretary

## **APPENDIX B**

### **Certificate of Authority to Transact Business**

# STATE OF MISSOURI



**Rebecca McDowell Cook**  
**Secretary of State**

## CORPORATION DIVISION

### CERTIFICATE OF CORPORATE GOOD STANDING - FOREIGN CORPORATION

I, REBECCA MCDOWELL COOK, SECRETARY OF STATE OF THE STATE OF MISSOURI, DO HEREBY CERTIFY THAT THE RECORDS IN MY OFFICE AND IN MY CARE AND CUSTODY REVEAL THAT

PATHNET, INC.

USING IN MISSOURI THE NAME

PATHNET, INC.

A DELAWARE CORPORATION FILED ITS EVIDENCE OF INCORPORATION WITH THIS STATE ON THE 10TH DAY OF JULY, 1998, AND IS IN GOOD STANDING, HAVING FULLY COMPLIED WITH ALL REQUIREMENTS OF THIS OFFICE.

IN TESTIMONY WHEREOF, I HAVE SET MY HAND AND IMPRINTED THE GREAT SEAL OF THE STATE OF MISSOURI, ON THIS, THE 14TH DAY OF AUGUST, 1998.

  
Secretary of State



## **APPENDIX C**

### **Managerial and Technical Qualifications**

## DESCRIPTION OF PATHNET'S MANAGERIAL AND TECHNICAL RESOURCES

Pathnet is a carrier's carrier providing high quality, low-cost, digital telecommunications capacity to under-served and second- and third-tier U.S. markets. Using an integrated strategy, Pathnet is building its digital network employing both wireless and fiber-optic technologies. Pathnet's digital network provides:

- Low Cost: Pathnet gives carriers a low-cost access option.
- High Quality: The network is designed and engineered to deliver greater than 99.999% network reliability on any individual path with an average bit error rate of no greater than  $10^{-13}$ .
- National Network: Pathnet currently has 2,100 route miles of completed network, 4,600 route miles of network under construction and 7,800 route miles of network under commitment.
- Unique Rights-of-Way: Strong affiliations with owners of telecommunications assets provide Pathnet's unique route paths.
- Access to New Markets: Provides under-served and second- and third-tier markets with a robust digital infrastructure enhancing capacity for telecommunications services.

Founded in 1995, Pathnet's wireless network evolved out of a FCC regulatory action that required hundreds of private microwave network operators to reconfigure their networks by relocating to a different part of the spectrum. Pathnet partnered with owners of telecommunications assets, including utility, pipeline and railroad companies, to upgrade and aggregate existing infrastructure to a state-of-the-art SONET network.

Due to demand and opportunity, Pathnet recently expanded the scope of its initial business strategy to include fiber. The company continues to rely on its traditional partnering approach for rights-of-way throughout the U.S. By broadening these partnering arrangements to include fiber, Pathnet is able to offer customized builds to service providers. Pathnet's fiber product line delivers bandwidth services, as well as dark or dim fiber to customers requiring dedicated network services in under-served and second- and third-tier markets. Pathnet offers telecommunications service to inter-exchange carriers, local exchange carriers, Internet service providers, Regional Bell Operating Companies, cellular operators and resellers.

### Applicant's Management Team:

**Richard A. Jalkut, President and Chief Executive Officer:** Richard Jalkut has over 30 years experience in the telecommunications industry, most recently as President and Group Executive of NYNEX Telecommunications, where he oversaw a team of more than 60,000 employees and more than \$12 billion in revenue. Mr. Jalkut began his career in 1966 at New England Telephone and served in a variety of positions, including Executive Vice President and Chief Operating Officer. In 1990, Mr. Jalkut was named Executive Vice President and Chief Operating Officer of New York Telephone Co., Inc.,

the predecessor to NYNEX Telecommunications Group. He was appointed President and Chief Executive Officer in 1991. In 1995, Mr. Jalkut assumed responsibility for the entire NYNEX Telecommunications Group where he served as President and Group Executive. He retired from NYNEX in August 1997. Mr. Jalkut holds a B.A. in Political Science and Economics from Boston College.

**James M. Craig, Executive Vice President, Chief Financial Officer and Treasurer:** James Craig brings 22 years of accounting and finance experience to Pathnet with 15 years specifically in the telecommunications industry. Formerly the Senior Director of Treasury Management for Omnipoint Communications, Mr. Craig was responsible for corporate planning and forecasting. He also served as a point of contact for investment banks, sell-side analysts and rating agencies. Prior to that, Mr. Craig assisted in the launch of two start-up telecommunications companies, UniSite and National Telecom PCS, Inc. As part of his role with UniSite, he established regional and national alliances between UniSite and telecommunications tower owners. Mr. Craig also spent a total of 11 years with MCI, holding positions such as Director of Wireless Communications, Director of Corporate Development, Director of Telecommunications Group Planning and Director of Corporate Treasury Group. Mr. Craig received his undergraduate degree from the State University of New York at Buffalo and a Masters degree from the Northwestern University School of Management.

**Robert A. Rouse, Executive Vice President, President of Network Services:** Robert Rouse joins Pathnet with over 30 years experience in the telecommunications industry. Prior to Pathnet, Mr. Rouse was Executive Vice President of Intermedia responsible for network services, engineering and systems. Prior to that, he spent over 10 years with MCI - the last three as Senior Vice President of Network Services for MCI/Concert. In this position, he was responsible for integrating the network and product functionality between MCI and British Telecom as well as building global networks. Before joining MCI in 1986, Mr. Rouse spent a total of 17 years with Frontier where he was involved in a series of their unregulated start-up business ventures, including a key role in developing Frontier's long distance company. Mr. Rouse received a B.A. in History from the University of Rochester.

**William R. Smedberg V, Executive Vice President of Corporate Development:** William Smedberg joined Pathnet as a consultant in 1996 and was named Vice President, Finance and Corporate Development in January 1997. Before Pathnet, Mr. Smedberg served in various financial planning positions at the James River Corporation of Virginia, Inc., for nine years. In particular, he served as Director, Strategic Planning and Corporate Development for Jamont, a European consumer products joint venture among Nokia Oy, Montedison S.p.A. and James River, where he was responsible for Jamont's corporate finance, strategic planning and corporate development. Earlier, Mr. Smedberg worked in the defense industry as a consultant and engineer for TRW, Inc. Mr. Smedberg received both a B.S. and M.B.A. from the University of Virginia.



**Shawn F. O'Donnell, Senior Vice President of Engineering and Construction:**

Shawn O'Donnell joined Pathnet with more than 14 years of engineering experience within the telecommunications industry. Prior to joining the Pathnet team, Mr. O'Donnell served as Director of Transmissions and Facility Standards and Engineering with MCI WorldCom. In his position as Director, he was in charge of a 340+ person team that was responsible for overall transmission and facility engineering for local, long distance and Internet networks. He also held a variety of other positions, including Senior Manager of Transmission Engineering Implementation and Senior Manager of Switched Network Planning. Before that, Mr. O'Donnell was a Control Engineer with Potomac Edison. While there, he was responsible for the management of communications networks associated with high voltage control systems. Mr. O'Donnell holds a B.S. in Electrical Engineering from Pennsylvania State University and a M.S. in Electrical Engineering from Virginia Polytechnic and State University.

**Gerry Sharp, Vice President and Chief Technology Officer:**

Gerry Sharp brings to Pathnet over 18 years of telecommunications experience, most recently as Senior Director of Architecture and Strategic Planning with Intermedia Communications. Prior to Intermedia, Mr. Sharp worked with Bell South.net, the State of Florida Division of Communications and USWest. While at Intermedia, Mr. Sharp worked with VOIP implementation and provided design direction for both VPN and IP Internet services. In his prior positions, he also developed a strategic transport service model using DSL, ATM and fiber-based solutions to reduce access cost via common UNE access and shared LATA aggregation, and designed dedicated Internet access links to integrated ATM, voice and data services. Mr. Sharp received his undergraduate degree in Electrical Engineering from Metropolitan State College in Denver, Colorado.

**Chuck Liggett, Senior Vice President and Chief Marketing Officer:**

Chuck Liggett comes to Pathnet from Concert Global Communications as its Vice President Portfolio Development and Strategy. In his position with Global Communications, Mr. Liggett was responsible for Concert's next generation programs. His team defined Concert's convergent voice and data portfolio and the infrastructure over which those services would be delivered and was responsible for defining in-country access strategies and migration to electronic web based customer care. Additionally, Mr. Liggett represented Concert in British Telecom deliberations regarding business and technology strategy and was heavily involved in planning for the global venture with AT&T. During his tenure at Concert, he also held the positions of Director of Broadband Services Marketing and Senior Manager of Data and Value Added Services Marketing. Prior to Concert, Mr. Liggett was employed by BT Tymnet/BT North America where he held the position of Northeast Regional Sales Manager. Mr. Liggett holds an undergraduate degree from Dartmouth College and an M.B.A. in Finance from New York University.

**Mary McDermott, Senior Vice President, General Counsel and Secretary:**

Mary McDermott joined Pathnet with over 17 years of legal experience in the telecommunications industry. In 1999, Ms. McDermott was named by *Wireless Week* magazine one of the top 25 "Influential Women of Wireless." Most recently, Ms. McDermott served as Senior Vice President and Chief of Staff for Government Relations of the Personal Communications Industry Association, where she formulated positions on

strategic policy issues affecting PCIA's members and represented PCIA before the Federal Communications Commission, Congress and the Executive Branch. From 1994 to 1998, Ms. McDermott was Vice President, Legal and Regulatory Affairs, for the United States Telephone Association. Before working with USTA, Ms. McDermott was a General Attorney for NYNEX, where she was responsible for representing NYNEX before the FCC and was a key legal advisor to corporate principals on strategic planning, new business, marketing and technology. Ms. McDermott's first exposure to the telecommunications industry was at New England Telephone, from 1982 to 1986, where she represented the company in all proceedings before the Main Public Utilities Commission. Ms. McDermott received her undergraduate degree from West Virginia University and her J.D. from Harvard Law School.

**Robert C. Ferry, Chief Information Officer:** Robert Ferry brings to Pathnet over 16 years of telecommunications, technology and corporate development experience. Formerly the Chief Technology Officer for Sector Communications, he set the technical direction for two European-based subsidiaries (telecommunications services and systems management software), managed the local area network and data communications systems, and oversaw the North American marketing and sales efforts. Prior to Sector, Mr. Ferry founded and was President of the technology consulting firm, Insight Information, and served as Director of Information Systems for Temps & Co. Mr. Ferry was educated at Purdue University in West Lafayette, Indiana.

**William E. Cotta, Vice President of Operations:** William Cotta has over 25 years experience in the telecommunications industry in the areas of network operations, customer service support, billing system operations, network construction and engineering. Prior to joining Pathnet, Mr. Cotta was Vice President and General Manager at Nynex where he managed a 2,500 person business unit with responsibilities for business and residential service operations, construction, engineering as well as business unit profitability. Mr. Cotta holds a B.S. in Electrical Engineering and an M.B.A. from Northeastern University.

**Joseph A. Mastrogiorgio, Vice President of Marketing:** Joseph Mastrogiorgio is a 19-year telecommunications industry veteran who comes to Pathnet after 10 years at MCI in sales and marketing. At MCI, he served as Managing Director of Enterprise Solutions for MCI Systemhouse and directed business development activities for new product solutions, leveraging MCI and Systemhouse core capabilities. Prior to working with Systemhouse, he was Director of Channel Management for MCI's Integrated Services Division and responsible for managed data network sales. Mr. Mastrogiorgio received a B.A. from Stonehill College and an M.B.A. from Fordham University.

**Michael R. Van Zetta, Vice President of Sales:** Michael Van Zetta joined Pathnet with over 19 years of sales and marketing experience in communications and the media technologies industry. Before joining Pathnet, Mr. Van Zetta was Regional Vice President of Carrier Sales at Frontier Corporation, Vice President of Sales for Winstar and Comsat, and Director of Sales and National Accounts Marketing at MCI. Mr. Van Zetta's media, long distance, wireless and data experience helps Pathnet fill the market

demand for SONET-based wireless solutions. Mr. Van Zetta holds a B.S. in Engineering from the United States Military Academy and an M.B.A. from the University of Dallas.

**Tara L. Quinnette, Director of Human Resources:** Tara Quinnette has 10 years experience in human resources and operations in the communications industry. Before joining Pathnet, Ms. Quinnette was Director of Human Resources at CNN-Washington, DC and Operations Manager for Potomac Televisions Services, Inc. at CNN. A Certified Professional in Human Resources (PHR), she has a broad range of experience in line management, employee/labor relations, training development, benefits and payroll administration. Ms. Quinnette received her undergraduate degree from Indiana University-Bloomington.

Applicant's Technical Resources:

Pathnet is engineering its network for maximum system reliability by using only the best system components and incorporating the latest technological standards. Applicant's network is designed and engineered to achieve greater than 99.999% network reliability on any individual path with an average bit error rate of no greater than  $10^{-13}$  and conforms to the most stringent industry standards. All of Applicant's vendor partners have passed Pathnet's stringent quality threshold requirements. Applicant's two primary vendors are Lucent Technologies and NEC.

***Lucent Technologies TrueWave® RS Fiber***

***Application Based Fiber Design for Long Distance, High Bit Rate Systems***

Lucent Technologies TrueWave® RS (reduced slope) single optical fiber with reduced dispersion slope is the industry's first nonzero-dispersion fiber (NZDF) designed specifically for long distance, high bit rate systems supporting the maximum number of channels operating in both the third and fourth wavelength windows. Today's optically amplified dense wavelength division multiplexing (DWDM) systems operate in the 1530 to 1620 nm window while emerging systems are also likely to utilize the 1565 to 1620 nm window.

The low dispersion slope of TrueWave RS fiber allows both today's and emerging systems to take maximum advantage of the intrinsic capacity of fiber by supporting the largest number of channels in each wavelength band over very long distances.

With TrueWave RS Fiber, Lucent Technologies continues its technology innovation . Wave that began with the patented and award winning TrueWave fiber. Specifically, TrueWave RS fiber is unique from other nonzero-dispersion fibers by having:

- Lowest dispersion slope across the third and fourth windows
- Half the dispersion variation of large area NZDF's
- Best performance for long distance systems with large numbers of channels

These characteristics translate into greater information capacity for the network. When installing for today's network, you need fiber that can optimally operate with transmission systems available today and those being demonstrated in research laboratories. Lucent Technologies has demonstrated 1000 Gb/s transmission on TrueWave fiber using wavelengths up to 1620 nm.

*TrueWave® is a registered trademark of Lucent Technologies Inc.*

### ***NEC 2000 Series SONET Digital Microwave Radios***

NEC's 2000 Series SONET digital microwave radios have a unique implementation of a protection scheme which provides the most capacity available in the smallest amount of space. Commonly referred to as 1xN, this protection scheme utilizes one RF channel to back-up multiple operational channels. NEC's implementation of this protection scheme provides one protection channel for seven operational channels in just two bays of equipment. One radio bay only occupies a 23" x 12" footprint. Each operational channel carries an OC-3 signal, or the equivalent of 2,016 simultaneous voice channels. In a 1x7 configuration, this translates to 14,112 simultaneous voice channels.

Another feature that attracted Pathnet to the NEC 2000 Series is its unique cross polarization interference canceller (XPIC) feature. Through proprietary engineering advancements, NEC's digital microwave radio provides greater cross polarization discrimination, allowing for the transmission of two OC-3 signals on the same frequency pair by using opposite polarities. Now, instead of being limited to seven RF channels carrying one OC-3 per channel in the 6GHz band, NEC's radios provide up to 14 OC-3s, doubling capacity in an already small space.

- SONET/SDH platform
- Greater than 99.999% path reliability, Bellcore Industry Standard
- More cost effective than fiber in certain target markets
- 1xN protection creating maximum availability and survivability
- Modular system, allowing for easy upgrades and maintenance while providing multiple OC-3 RF channels in one standard bay
- Each node, which is typically 25 miles apart, is capable of drop/insert multiplexing
- Both frequency and space diversity is incorporated into the network
- The network platform is designed for maximum flexibility for voice, data and video services

## **Network Operations Center**

Once a network is operational, Pathnet's 24-hour, 7-day-a week Network Operations Center (NOC) begins monitoring each route. The installed surveillance and alarm system ensures the equipment operates with maximum reliability.

- Single point of contact with technical service consultant
- Tier 2 technical support utilizing co-located equipment lab
- Tier 3 technical help desk
- Both fault and performance analysis positions staffed in the NOC
- Proactive customer notification and network events
- TMN Compliant Element Management System
- Redundant Data Telemetry Network
  - Monitored from NOC
  - Frame relay/Cisco routers
- NOC supported by dedicated onsite backup generator
- Disaster Recovery NOC established

**APPENDIX D**

**SEC Form 10-K  
(Dec. 31, 1999)**

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549  
FORM 10-K

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES  
EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 1999.

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES  
EXCHANGE ACT OF 1934

For the transition period from to

Commission File No. 0-24745

**Pathnet, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**52-1941838**

(I.R.S. Employer  
Identification No.)

**1015 31st Street, N.W.**

**Washington, DC**

(Address of principal executive offices)

**20007**

(Zip Code)

**(202) 625-7284**

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

None

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ No ☐

As of February 15, 2000 there were 3,068,218 shares of the Issuer's common stock, par value \$.01 per share, outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

None

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*This discussion contains forward-looking statements that involve risks and uncertainties including, without limitation, statements relating to our company and our business units' plans, strategies, objectives, expectations, intentions and resources. Our actual results could differ materially from those anticipated in forward-looking statements as a result of various factors, including those described in the section of this Annual Report on Form 10-K entitled "RISK FACTORS." Unless we indicate otherwise, references to our current or future business, strategies or plans are references to our consolidated business, strategies or plans, including our other future subsidiaries.*

## PART I

### ITEM 1. BUSINESS

#### The Company

We were founded in 1995 and are a wholesale telecommunications provider building a nationwide network designed to provide other wholesale and retail telecommunications service providers with access to underserved and second and third tier markets throughout the United States. We partnered with owners of telecommunications assets, including utility, pipeline and railroad companies ("Incumbents") to upgrade and aggregate wireless infrastructure to a microwave network using high capacity Synchronous Optical Network Technology, also known as "SONET". Through 1998, we signed agreements with eight Incumbents and had over 6,000 miles of wireless network under development.

In early 1999, we expanded the scope of our business strategy to include fiber optic technology to enable us to deliver high bandwidth services as well as dark and dim fiber to inter-exchange carriers ("IXCs"), local exchange carriers ("ILECs"), Internet service providers ("ISPs"), Regional Bell Operating Companies ("RBOCs"), cellular operators and resellers. Our network will enable our customers to offer additional services to new and existing customers in these markets without having to expend their own resources to build, expand, or upgrade their own networks. In addition to serving unique markets, we plan to differentiate our network by:

- Its ability to provide a complete access solution in our target markets, including separate installations –often referred to as physical collocations- of our telecommunications equipment in ILEC central offices and intercity transport, and
- Its advanced network architecture that will allow our customers to offer the latest voice, video, and data services across a single network at very high speeds

In November 1999, we entered into agreements providing for strategic investments from Colonial Pipeline Company, Burlington Northern and Santa Fe Corporation and CSX Corporation (the "Transaction"). Upon the closing of the Transaction, we will form a new holding company, Pathnet Telecommunications, Inc. ("PTI") that will receive the right to develop over 12,000 miles of the investors' rights of way holdings in return for preferred stock. Colonial Pipeline will also contribute – in two separate tranches – an aggregate of \$68 million in cash in return for preferred stock, an option to purchase preferred stock, an option to purchase up to 10% of the number of shares that Pathnet Telecommunications, Inc. actually issues in an underwritten initial public offering at a price equal to 90% of the price that Pathnet Telecommunications, Inc. charges for the sale of its shares in the offering and a single fiber optic conduit along a portion of the Colonial right of way corridors or other telecommunications assets of equal value.

The structure of the proposed contribution and reorganization transaction requires Pathnet to obtain waivers and consents from the holders of a majority in principal amount of Pathnet's notes. In consideration for the required consents, (1) PTI is offering its guarantees for all of the notes (the "Guarantee"), (2) Pathnet will make a consent payment of \$25.00 per \$1,000 in face amount of the notes to each of the consenting noteholders who held notes on the record date of the consent solicitation and (3) Pathnet will purchase and pledge to the indenture trustee, for the benefit of the noteholders, additional United States Treasury securities as security covering the October 16, 2000 interest payment on the notes following the consummation of the Transaction

The new investors collectively will receive an approximate one-third equity stake in the holding company, as well as proportionate representation on the holding company board. Closing of the Transaction is subject to the satisfaction on or before March 31, 2000, of certain conditions, including consent of the holders a majority of the principal amount of our outstanding bonds. There is no assurance that these conditions will be satisfied by that date. *In this Report, the words "we," "us" and "our" refer to Pathnet Inc. for periods prior to the closing of the Transaction and to the new holding company and its subsidiaries (including Pathnet Inc.) for periods after the closing of the Transaction.*

We expect our nationwide network to grow to approximately 20,000 route miles utilizing fiber and high capacity Synchronous Optical Network Technology, also known as "SONET" microwave. We intend to continue to develop our backbone on a "smart-build" basis by prioritizing route development along corridors with high demand for dark fiber and conduit or partnering with established companies in the joint development of those routes. We expect our network will terminate in central offices in our target markets where we intend to collocate and use ILEC unbundled network elements or other third party local network assets in the provision of service to our customers.

As of December 31, 1999, our network consisted of over 6,300 wireless route miles providing wholesale transport services to 30 cities and an additional 500 miles of installed fiber. We are constructing an additional 600 route miles of fiber network, which is scheduled for completion in the first half of 2000. We have also entered into two additional co-development agreements for the construction of an additional 750 route miles of fiber optic network. We expect to develop additional backbone network from a pool of over 12,000 route miles of right of way received in the Transaction — 8,000 of which will have some form of exclusivity. These additional route miles will provide us with the opportunity to develop unique and diverse paths connecting our target markets back to major tier one metropolitan areas.

In addition to building our network, since inception we have:

- Obtained state regulatory certification or otherwise been authorized to provide our planned telecommunications services in 13 states, with applications pending in an additional 8 states, which will allow us to obtain unbundled network elements from the ILECs;
- Executed interconnection agreements with three existing local telephone companies; US West, Ameritech and Southwestern Bell;
- Executed agreements providing for collocations with US West and BellSouth;
- Launched our Alliance Program under which we expanded our virtual network to reach additional markets by reselling portions of two other carriers' networks;
- Signed Master Service Agreements with the three largest U.S. IXC's;

- Completed our fully operational Network Operations Center, providing twenty-four hours a day, seven days-a-week coverage; and
- Entered into a leased fiber agreement for an indefeasible right to use (sometimes referred to as an "IRU") a portion of our dark fiber capacity on our fiber route currently being constructed from Chicago, Illinois to Aurora (a suburb of Denver), Colorado.

## **Market Opportunity**

### **Industry Overview**

We believe that the following five factors create a substantial market opportunity for our products and services:

- Increasing demand for high capacity access and transport services to accommodate unprecedented consumer demand for Internet access and related services;
- Growing disparity, sometimes referred to as the "digital divide," between telecommunications services available in the largest markets and those services available in second and third tier markets due to our telecommunications service provider customers' nearly exclusive focus of resources and product offerings on first tier domestic and global markets;
- Rapid development of new technologies such as Digital Subscriber Line services ("DSL") that allow carriers to exploit existing local network infrastructure to deliver multiple media (including voice, data, video and Internet) at high speed over a single physical local access connection to a network;
- Rapid migration from circuit-based network architectures to fast packet-based network technologies that allow for the efficient integration of multiple customers across a common backbone network infrastructure; and
- Adoption of the Telecommunications Act and certain state regulatory initiatives that provide increased opportunities in the telecommunications marketplace by opening local markets to competition and requiring ILECs to provide additional direct interconnection and collocation to their competitors.

We intend to exploit these developments and employ emerging convergent technologies in the deployment of our backbone network and local access platform. We believe the emergence and acceptance of advanced convergence-supporting technologies at the user premise will significantly increase our abilities to provide low cost solutions to our carrier customers in underserved and second and third tier markets that have been overlooked by other emerging telecommunications service providers.

### **Addressable Market**

We worked with The Yankee Group on an addressable market study for the products and services we expect to bring to the marketplace in the near term. The study found that the communications market is currently a \$270 billion market in the U.S. and is expected to grow at over 10% annually for the next five years. According to The Yankee Group, the sections of the market that we expect to address — backbone infrastructure services, inter-city and local wholesale transport services and local access services — are among the most rapidly growing components of the current telecommunications

landscape which The Yankee Group forecasts to grow at approximately 18% annually for the next five years. The Yankee Group estimates that the addressable market for these products and services in the United States to be \$30 billion in 1999, expanding to \$80 billion by 2005.

We plan to serve second and third tier markets with populations between 600,000 and 50,000, of which there are over 200, with backbone infrastructure services, long haul wholesale transport and local access services. We also expect to capture a portion of the long haul wholesale transport services segment between first tier markets with populations over 600,000. We estimate that the addressable market for these products and services is \$13 billion in 1999, growing to \$27 billion in 2004.

### **Business Strategy**

Our business objective is to become the preferred facilities-based wholesale telecommunications provider to customers in our target markets. To achieve this goal, we plan to:

- Concentrate our focus on the needs of telecommunications service providers and their customers;
- Focus on underserved and second and third tier markets;
- Enter and roll-out service rapidly in our target markets;
- Design, build and acquire a low-cost network;
- Provide superior customer service and service quality; and
- Pass to our customers savings from the deployment of our local network access program.

Each of these strategies is discussed in more detail below:

• ***Concentrate our focus on the needs of telecommunications service providers and their customers.***

Our customers are companies in the business of selling communications services to end user customers. We believe that these companies are investing considerable sums to connect as many customers as possible to keep pace with the rapidly evolving telecommunications marketplace and that these carriers would like to find the means to maximize the return on their investments and deployment of resources. We further believe that these challenges are magnified when they consider serving customers in second and third tier markets. Very few of these telecommunications service providers operate at a scale that justifies significant investment in building their own network in smaller markets. The alternative — re-selling ILEC local networks — has limited appeal because it can be expensive and, in many cases, the ILEC network components lack the broadband capabilities that these telecommunications service providers need to compete effectively in the marketplace. We believe that our customers will be able to effectively "timeshare" our products and services. This will enable them to access second and third tier markets to serve their customers without incurring high capital expenditures, or many of the franchising and licensing fees and long lead times that are usually associated with building their own networks and establishing a meaningful local collocation presence in these markets.

- ***Focus on underserved and second and third tier markets.*** We plan to serve second and third tier markets with populations between 600,000 and 50,000, of which there are over 200, as well as a portion of the first tier markets with populations over 600,000. We believe our customers will value our backbone network because, for the most part, it will be built along unique rights of way offering route separation and diversity in the event of a network system failure. Also, unlike others backbone networks that bypass second and third tier markets, we will construct and design our backbone to interconnect into these markets. We seek to be among the first to market advanced wholesale transport and local access services in many of our markets. By pioneering in second and third tier markets, we hope to capitalize on escalating demand for high capacity bandwidth services that is a product of the current unprecedented demand for Internet access and related services.
- ***Enter and roll out service rapidly in our target markets.*** We seek to become the first emerging carrier to enter and roll out our products and services broadly in our targeted underserved and second and third tier markets by:
  - Securing central office space before our competitors do;
  - Obtaining and retaining customers before significant competition for our products and services in these markets arises; and
  - Maintaining advantages over our competitors by offering superior coverage and high customer satisfaction.
- ***Design, build and acquire a low-cost network.*** Consistent with our conservative capital expenditure program, one of our key strategies since inception has been to establish strategic relationships with owners of existing telecommunications infrastructure, to reduce our capital costs and time to market. As of December 31, 1999, we had entered into strategic relationships with eight companies who have provided the foundation for our existing 6,300-route mile wireless network. We have also entered into three co-development agreements relating to the construction of 1,850 fiber route miles. After completing the Transaction through our strategic relationships with BNSF, CSX and Colonial, we will have access to over 12,000 miles of valuable rights of way, 8,000 miles of which will have some form of exclusivity.

We are developing our network using a "smart build" approach. Under this approach, we attempt to reduce the risk of building our network by obtaining one or more co-development partners to share in the costs. We also determine the level of customer demand before construction by obtaining direct customer input regarding the attractiveness of a route and, in certain cases, entering into pre-construction sales of dark fiber and conduit. As a result, we expect that the cost of our retained nationwide backbone network will be significantly less than a comparable network built or acquired at market rates. We intend to continue this low cost approach in providing our local access services. We plan to secure CLEC status in each state that we provide service and we anticipate signing interconnection agreements with all of the relevant ILECs. These interconnection agreements allow us to construct our microwave tributary routes directly to the ILEC central office facility, allowing us to use the existing central office as our point of presence in the market, and avoid the cost of separate facilities. This will enable us to obtain and use unbundled network elements from the ILECs at favorable rates and terms, including space in the ILEC's central offices that are necessary to establish our collocations.

- ***Provide superior customer service and service quality.*** As part of our strategy to obtain and retain business and telecommunications service provider customers, we intend to provide superior service and customer care. We will aim to provide high quality services by offering what we believe to be state-of-the-art networking solutions and superior customer service. These networking solutions include end-to-end proactive network monitoring and management through our Network Operations Center, 24 hours a day, seven days-a-week. We also offer multiple security features and we have completed implementing our Year 2000 readiness program to ensure that our networks and systems are Year 2000 compliant. See "*RISK FACTORS — Risks Relating to Our Company Operations*" and "*MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS — Year 2000 Readiness Disclosure.*" We plan to provide superior customer service to promote a high level of customer satisfaction, achieve customer loyalty and accelerate the use of our products and services. In addition, we have, and will continue to install, a technologically advanced network that we believe provides the high level of reliability, security and flexibility that our customers demand. Our fiber and wireless network is designed to meet industry standards for delivering network reliability of 99.999% per network segment.
- ***Pass to our customers savings from the deployment of our local network access platform.*** We plan to deploy a convergent local network access platform. In other words, we intend to combine, or enable the combination of, all multiple customer applications onto a single physical local access connection, which will travel on our fast packet-based capable backbone infrastructure. Using this convergent platform we believe that our telecommunications service provider customers will be able to launch their own services to better serve their end user customers.

### **Projected Development of Business Plan**

With the funds and other assets received in the Transaction, and additional equity financings, we plan to complete the first phase of our long term business plan. Our long term business plan calls for us to develop an approximately 20,000 mile network and provide services to over 200 second and third tier markets. In the first phase of this plan, we expect to complete development of approximately 12,500 route miles of network and approximately 400 collocations by the end of 2002. We project the development of our network through the middle of 2001 to be:

	<u>Projected Network Route Miles Completed</u>	<u>Projected Collocations Developed</u>	<u>Projected Accessed Cities</u>
As of December 31, 1999	6,800	40	30
End of Second Quarter 2000	7,600	85	50
End of Fourth Quarter 2000	9,100	150	80
End of Second Quarter 2001	10,500	230	120

We will draw on the following sources of cash to fund the first phase of our long term business plan:

- our current cash resources;

- the anticipated proceeds (after associated expenses) from both tranches of Colonial's investment in our shares of series E convertible preferred stock as part of the contribution and reorganization transaction;
- borrowing under senior secured vendor financing that we propose to execute in connection with the purchase of fiber optic cable and associated network equipment;
- payments from our co-development partners and sales to infrastructure and bandwidth services customers; and
- additional equity investment(s) of at least \$100 million.

Based on our projected development costs, we believe that these resources will be sufficient to satisfy the anticipated cash requirements (including both network development and operating losses) of the first phase of our long term business plan. However, we will require additional resources to fund the remaining phases of our current long term business plan, and cannot assure you that these projections will prove to be accurate or that our development costs will not exceed those that we currently anticipate.

## Strategic Relationships

### Fiber Co-Development Partners

**Worldwide Fiber.** In March 1999, we entered into a co-development agreement with Worldwide Fiber, Inc. for the design, engineering and construction by Worldwide Fiber of a multiple conduit fiber-optic system. One of the conduits will contain a fiber optic cable consisting of a specified number of fiber optic strands. The conduits and any installed strands will be equally divided between Pathnet and Worldwide Fiber, and the costs to construct the route will be shared equally by the partners. In addition, Pathnet will pay Worldwide Fiber a management fee equal to 10% of Pathnet's share of the development costs. The system will be approximately 1,100 route miles long, between Aurora, Colorado (a suburb of Denver) and Chicago, Illinois. The first segment, Chicago, Illinois to Omaha, Nebraska, is scheduled to be completed in the fourth quarter 1999, and the second segment, Omaha to Aurora, is scheduled to be completed by the end of the second quarter of 2000. In connection with the co-development agreement, we entered into a joint marketing agreement with Worldwide Fiber under which both Worldwide Fiber and we will attempt to sell certain inactive fiber optic strands on the route, and will share the revenues from such sales. The joint marketing agreement also permits each party to retain fiber optic strands for its own use, subject to certain restrictions on resale, and to swap a certain number of fiber optic strands to third parties.

**Tri-State.** In August 1999, we entered into a co-development agreement with Tri-State Generation and Transmission Association, Inc. and four regional electric cooperatives for our design, engineering and construction of an aerial fiber system, approximately 420 route miles long, between Albuquerque, New Mexico and Grand Junction, Colorado. This system, constructed on power transmission lines, will contain a specified number of fiber optic strands. The cost to construct the system will be borne equally between Pathnet and the other parties. In connection with the co-development agreement, we entered into a joint marketing agreement under which each party will reserve a portion of the fiber strands for its own operations, a subset of which will be available for swaps with third parties. The remaining fiber strands will be jointly sold, with Pathnet as the exclusive marketing agent. Any revenues derived from the sale of those fiber strands will be shared equally between Pathnet and Tri-State, after deduction of a Pathnet marketing fee. We expect this system to be completed in the second half of 2000.

**Alliance Program.** We have entered into capacity purchase agreements with two other carriers, IXC and Frontier, enabling us to resell capacity on their networks. This allows us to extend our network reach to POPs throughout the markets reached by Frontier's and IXC's networks and pre-sell capacity along routes we intend to develop.

### **Wireless Co-Development Partners**

**Fixed Point Microwave Services Agreements.** We have entered into several fixed point microwave services agreements with co-development partners who own existing wireless telecommunications assets. Typically, under these agreements we lease an interest in the co-development partner's sites and facilities on which our network is built and in return we provide the co-development partner with capacity on such network for its own internal use. We typically pay the co-development partner a portion of the revenue derived from our selling the excess bandwidth on that co-development partner's route. Generally, the co-development partner receives up to 20% of the revenues earned after the systems have been in place for 48 months. In addition, these agreements generally require the co-development partner to make capital investments toward the upgrade of its systems infrastructure to make it suitable for installation of the equipment used in our digital network which, in most cases, includes significant modifications to structures, towers, battery plants and equipment shelters. These agreements generally provide for a five or ten year term that is subject to renewal by us upon the occurrence of certain events, for up to a 25-year term. As of February 15, 2000, we had entered into fixed point microwave services agreements with these co-development partners:

- Idaho Power Company;
- Northern Indiana Public Service Company;
- The Burlington Northern and Santa Fe Railway Company;
- Kinder Morgan, Inc. (formerly KN Energy, Inc.);
- Kinder Morgan, Inc. (formerly KN Telecommunications, Inc.);
- Texaco Pipeline;
- Northern Border Pipeline Company; and
- Northeast Missouri Electric Power Cooperative.

**Tower Lease Agreements.** We entered into a leasing arrangement with American Tower Corporation under which American Tower granted us a 25-year license to use certain of its towers to deploy several wireless portions of our network.

### **Products and Services**

We plan to offer the following products and services:

- **Dark fiber and conduit for sale or grant of long lease terms.** We sell rights for dark fiber and related services as well as rights to conduit. Dark fiber consists of fiber strands contained within a fiber optic cable which has been laid but does not yet have its transmission electronics installed. A sale or grant of an indefeasible right to use our dark fiber typically has a term which approximates the economic life of a fiber optic strand (generally 20 to 30 years). Purchasers of



dark fiber rights typically install their own electrical and optical transmission equipment. Substantially all of our current and planned builds include laying spare conduits, and we may sell rights to use them. A purchaser of conduit rights typically lays its own cable inside the conduit. Related services for both sales of rights for dark fiber and conduits may include installation of customer equipment at the locations where we have installed transmission equipment and network equipment and maintenance of the purchased fiber or conduit. Generally, we expect our customers to pay for dark fiber rights and conduit at the time of delivery and acceptance of the fiber or conduit, although other payment options may be available. In addition, depending upon the nature of our contractual terms, we will treat our sales of dark fiber and conduit as sales-type leases or operating leases. We typically require our customers to make ongoing payments for maintenance services.

- ***Dark fiber for lease or lease to purchase.*** We will also lease dark fiber for a term less than the period for which the indefeasible usage rights are typically granted. Leases will be typically structured with monthly payments over the term of the lease. Generally, we expect to realize a premium in lease pricing for bearing the risk that the lease will not be renewed for the balance of the life of the asset. We plan to offer customers the option to lease to purchase.
- ***Wavelength lease.*** In our network, we intend to use Dense Wavelength Division Multiplexing, or DWDM, a technology that allows multiple optical signals to be combined so that they can be aggregated as a group and transported over a single fiber to increase capacity. This will allow us to sell a customer exclusive long-term use of a portion of the transmission capacity of a fiber optic strand rather than the entire strand. We expect that the installation of the necessary transmission equipment to provide these services along our first completed fiber route from Chicago to Denver will be complete in the first half of 2000. We expect to be able to derive up to 160 individual wavelength channels at either OC-48 or OC-192 per fiber pair.
- ***Inter-city wholesale transport services.*** Our inter-city transport services are focused on second and third tier markets and are comprised of point-to-point services offered as Time Division Multiplexing, or TDM, which is an electronic process that combines multiple communication channels into a single, higher-speed channel by interleaving portions of each in a consistent manner over time-based private lines at high speed including DS-1, DS-3, OC-3, OC-12, OC-48 and OC-192. We believe that our services will be particularly attractive to our customers because of our low cost backbone transport and low cost local loops (attributable to our collocation in the ILEC's central office and our use of unbundled network element transport). We believe that we offer more flexible commitment levels with higher reliability than are currently available on traditional multiplexed services. As of December 31, 1999, we offered inter-city wholesale transport services on our 6,300 route mile-wireless network as well as via our Alliance Program.
- ***Local wholesale transport services.*** Once we establish collocation in the ILEC's central offices in second and third tier markets, we believe that we will be able to deliver local transport between central offices or to connect those central offices to our backbone or a telecommunications service provider customer backbone. We plan to offer local transport services, such as xDSL-based private lines or TDM-based private lines at high rates of speed including DS-0, DS-1, DS-3, OC-3, OC-12, OC-48. We expect our customers to use these services to reduce charges for inter-office transport or to provide end office trunking.
- ***Local access services.*** We plan to deliver our local access services from network presences we have

established by collocating with the ILECs in second tier and third tier markets and through the local networks we have established using a combinations of unbundled network elements and other network components from other communications carriers.

- ***Virtual Points of Presence (VPOP).*** We plan to bundle our wholesale transport services and local access services to offer our virtual points of presence service, sometimes referred to as VPOP. Through this bundle of services, we intend to offer our customers the ability to establish a virtual point of presence for their networks using our facilities, thus avoiding the need to place any equipment at a collocation site. We will focus this VPOP service on second and third tier markets. We expect that our VPOP service will allow our customers to virtually extend the reach of their networks while expending less resources and incurring far less risk than if that customer had expanded and built its own network.

### **Sales and Marketing Strategy**

Our wholesale customers tend to be very knowledgeable about the nature of the services and technology available in the marketplace. As a result, our marketing efforts are largely limited to ensuring that our products and services are visible and well represented in the market. As part of our marketing strategy, we attempt to position ourselves as the provider of choice for telecommunication service providers because of the quality of our service, the control we provide customers over their service platforms, the reliability of our services and our low cost position. We believe our cost advantages allow us to sell our services on our network at prices that represent potentially significant savings for our large-volume customers relative to their other alternatives.

We sell our services to large regional and national telecommunications service providers through our direct sales team on a national account basis. Since we sell primarily to other telecommunications service providers, we expect that our sales and marketing department will remain relatively small and focused, resulting in strong customer relationships and lower operating costs. Our sales team consists of senior level management personnel and experienced sales representatives with extensive knowledge of the industry and our products. This team also has key industry contacts at various levels within many telecommunications service provider organizations.

### **Customers**

We have defined a range of products and services designed to meet the unique needs of our customers and, as a result, we intend to offer several types of services to these types of customers:

- **Full service IXC:** we intend to provide low cost DSL-based transport, used to deliver broadband access. We expect to provide lower cost access and short haul transport to reduce the cost of delivering traditional voice, private line or data services;
- **CLECs and competitive IXCs:** we can extend reach to new markets by providing a more efficient means for CLECs to originate or terminate voice traffic and a lower cost source of inter-city wholesale transport or infrastructure services;
- **ISPs:** we intend to offer low cost DSL to deliver broadband access. We expect to be able to extend ISPs reach to new markets. We plan to provide low cost infrastructure services and wholesale transport services. We expect to provide direct access to the locations at which ISPs exchange each other's traffic.

- ILECs: we expect to provide lower cost network services within the ILEC's own region and wholesale transport services and local access services out of region as ILECs become permitted to provide these services;
- Wireless and cable providers (including cellular companies): we plan to provide backhaul services, head end distribution services and wholesale transport services; and
- Resellers: we expect to provide low cost termination for switched traffic.

## **The Pathnet Network**

### **Backbone Network**

We plan to create an approximately 20,000 route mile nationwide network. Tributaries using either fiber or wireless technology will connect our backbone to our targeted markets. We believe that connecting the second and third tier markets to a national backbone is the key to funneling traffic between these markets and first tier markets.

***Network Route Selection and Smartbuild Approach.*** In order to utilize capital effectively, we employ a "smart-build" approach. This means that we seek to reduce our risks in undertaking the build by:

- Obtaining one or more co-development partners to share in the costs;
- Determining the levels of customer demand before construction (by obtaining direct customer input on the route); and
- In certain cases, seeking to effect pre-construction sales of dark fiber and conduit.

Before deciding to construct or acquire a network to serve particular markets, we review the demographic, economic, competitive and telecommunications demand characteristics of the markets along proposed routes, including their location, the concentration of potential business, government and institutional end-user customers, the economic prospects for the area, available data regarding transport demand and actual and potential competitive telecommunications company competitors. We estimate market demand on the basis of market research performed by us and others, utilizing a variety of data including estimates of the number of interstate access and intrastate private lines in the market based primarily on FCC reports and commercial databases.

We expect to enter into a co-development relationship with one or more partners to share the costs of building the route as well as the dark fiber revenue from each constructed route. We recently employed this approach in developing our fiber routes from Chicago, Illinois to Aurora (a suburb of Denver, Colorado), and from Albuquerque, New Mexico to Grand Junction, Colorado with our partners, Worldwide Fiber and Tri-State. Typically, independent contractors selected through a competitive bidding process provide our construction and installation services. In certain of our network builds, we provide project management services, including contract negotiation and supervision of the construction, testing and certification of our facilities.

***Fiber Currency, Swaps and Acquisitions.*** When determining the fiber optic cable and conduit sizing for a particular route, we take into account these considerations:

- Fiber strands required for our retained network;

- Fiber strands required by our co-development partner's network;
- Projected sales of fiber strands and conduits along the route;
- Quantity of fiber strands to be retained and allocated for swaps to obtain fiber strands on routes owned by others; and
- Retained empty conduit in the event we desire to deploy different or advanced technologies.

We believe fiber has a "currency" value depending upon the value of the route to specific telecommunications service providers. Once we determine a particular route has a high currency value, we expect to capitalize on this by using excess fibers and conduit to enable advantageous fiber swaps and sales of fiber and conduit. If we determine that a particular route is being sufficiently served by existing fiber, we will not build our own network along that route, but instead we will use our fiber "currency" to swap for existing fiber along those routes or we will acquire dark fiber that is already installed by another company. In this way, swaps will allow us to leverage our network, gain more geographical coverage and decrease our time to market.

In order to connect our network with our customers, we develop interconnections from our backbone network into our targeted underserved and second and third tier markets. We design and install our interconnections using the most cost effective technology to meet the market's needs that may include building fiber optic cable, acquiring existing fiber, installing wireless components, or combinations of these technologies.

#### **Local Access Convergent Platform**

We believe establishing a local presence in our target markets will position us to deploy a convergent local network access platform that will enable multiple customer applications to be combined at a single physical local access connection and then travel onto our advanced, fast packet-based backbone infrastructure. From this convergent platform, we expect to enable our telecommunications service provider customers to launch their own services to better serve their customers.

We intend to obtain state certification or authorization as a CLEC in each state in which we are required to do so, and to sign interconnection agreements with the relevant ILECs in our target markets. Once we have obtained the appropriate state authorization and entered into interconnection agreements with the ILECs, we will be able to construct our central office collocation facilities at the premises of, and obtain and use network elements from, the existing local telephone companies. As of February 15, 2000, we were authorized to provide our products and services in 13 states and have several interconnection agreements in negotiation with the ILECs.

As of December 31, 1999, we had 40 collocations, which are environmentally controlled, secure sites designed to house transmission, routing and other equipment. We are designing our collocations with an average of 100 square feet in order to provide our customers direct local access via our access platform to those markets. We intend to expand our network to include multiple collocations in ILEC central offices within our target markets in order to provide the platform for our end-to-end service offerings for our customers.

Once our collocations are established, we plan to link these collocations together within the market using unbundled network element transport from the ILECs in order to provide our products and services throughout the market. In addition to these unbundled network elements, there are other possible

alternatives for us to employ in linking these central offices. For instance, we may lease or purchase dark fibers from a third party provider, use wireless connections or possibly even lay our own local fiber if warranted based upon demand.

### **Equipment Supplier Relationships**

We have agreed upon an exclusive vendor agreement with Lucent Technologies which provides for discounted pricing on the fiber that we purchase from Lucent as well as marketing and engineering support in connection with the expansion of our network. The effectiveness of this agreement is conditioned on the execution of documents relating to the financing by Lucent of such purchases of fiber and the execution of these financing documents is, in turn, conditioned on the closing of the Transaction.

Under a Master Agreement between us and NEC, dated August 8, 1997, we agreed to purchase from NEC certain equipment, services and licensed software for us to use in our network under pricing and payment terms the we believe are favorable. In addition, NEC has agreed, subject to certain conditions, to warranty equipment that we purchase from NEC for three years, if defective, to repair or replace certain equipment promptly and to maintain a stock of critical spare parts for up to 15 years. This agreement with NEC provides for fixed prices during the first three years of its term.

We have also entered into a Purchase Agreement with the Andrew Corporation in which we agreed exclusively to recommend to our co-development partners certain products manufactured by Andrew. In return, Andrew agreed to sell those products to our co-development partners and to us for a three year period, renewable for two additional one-year periods at our option. The agreement generally provides for discounted pricing based on projected order volume.

### **Proposed Credit Facility with Lucent**

We have been negotiating with Lucent Technologies, Inc., over the terms of a senior secured credit facility that would provide us with vendor financing for fiber optic cable purchases. The credit facility would be executed in connection with a fiber optic cable purchase agreement where we agree to make Lucent our exclusive provider of fiber optic cable. Neither party has signed the definitive agreements governing the proposed financing, but we expect to execute definitive agreements in the next several weeks. We describe below the material terms of the proposed Lucent credit facility, based on the current drafts of the agreements. We cannot assure you that we will enter into any financing agreements with Lucent, or that any agreements that we execute will be on these terms. However, we currently expect that we will enter into a vendor financing agreement with Lucent on terms similar to those outlined below.

The first tranche of the proposed facility will be \$60 million and will be available to be drawn after the facility becomes effective until January 31, 2001. The proceeds of any loans by Lucent must be used to finance fiber optic cable that we purchase under the fiber optic cable purchase agreement between us and Lucent. The loans will not cover the entire invoice cost of those purchases. Under the Lucent credit facility, we will be required to pay various customary arrangement, commitment and other fees. To preserve exclusivity, Lucent must offer additional tranches on similar terms to the first tranche.

If executed as currently drafted, we expect the proposed credit facility with Lucent to have these terms:

- The first tranche loans would mature on December 31, 2005;

- Mandatory prepayments are required in connection with dark fiber sales and other dispositions;
- Lucent's obligation to loan any funds under the facility is conditioned on, among other things:
  - We must purchase and pay for a specified minimum dollar value of Lucent products;
  - A newly-formed vendor financing subsidiary of Pathnet or Pathnet Telecom would be the borrower under the credit facility and must be capitalized with assets having a value of at least \$60 million;
  - We must obtain the necessary permits (including any required rights of way) required to build the network segment in which the financed fiber will be installed; and
- The loans would bear interest at floating rates based on an index plus a specified margin.

The indebtedness outstanding under the Lucent credit facility is expected to be guaranteed by the borrower (a newly formed vendor financing subsidiary of ours or Pathnet Telecommunications, Inc.). The indebtedness will be secured by all property and assets owned by, and all capital stock of and inter-company indebtedness owed to, the borrower.

We anticipate that the Lucent credit facility will contain various covenants typical for facilities of this nature. Some of those covenants will restrict the vendor financing subsidiary and its subsidiaries, if any, from, among other things:

- Incurring indebtedness;
- Entering into merger or consolidation transactions;
- Disposing of their assets;
- Acquiring assets; and
- Making certain restricted payments;
- Paying interest or principal on the Notes if excess cash is available at Pathnet Telecommunications, Inc. or us for Note repayment;
- Creating any liens on its assets;
- Making investments;
- Entering into sale and leaseback transactions; and
- Entering into non-arms'-length basis transactions with affiliates.

As currently drafted, the Lucent credit facility also requires that the vendor financing subsidiary comply with various customary financial covenants, including required ratios for:

- Consolidated Indebtedness to Total Capitalization;
- Consolidated Indebtedness to Consolidated EBITDA;
- Consolidated EBITDA to Consolidated Debt Service;
- Consolidated EBITDA to Consolidated Interest Expense; and
- Minimum annual revenues to the vendor financing subsidiary.

The draft Lucent credit facility contains a number of events of default, including:

- Nonpayment of principal, interest, fees or other amounts;
- The occurrence of a default on other material indebtedness of the vendor financing subsidiary and its subsidiaries (if any) and, in certain circumstances, of Pathnet Telecommunications, Inc. and its subsidiaries including a termination by Lucent as the result of our default on the fiber supply agreement with Lucent;
- Failure to comply with certain covenants, conditions or provisions under the credit facility;
- The existence of certain judgments;
- The occurrence of any default under material agreements that could result in a material adverse effect on the vendor financing subsidiary;
- The breach of representations or warranties;
- Commencement of reorganization, bankruptcy, insolvency or similar proceedings;
- The occurrence of certain ERISA events; and
- A change of control of Pathnet Telecommunications, Inc. or the vendor financing subsidiary.

If the borrowing subsidiary defaults on its obligations under the Lucent credit facility, all of those obligations could be declared to be immediately due and payable. Upon a payment default or upon any acceleration of the obligations under the Lucent credit facility, assuming those obligations exceeded \$7.5 million, any amounts then owing under the Notes would become immediately due and payable.

Under the Lucent credit facility, the vendor financing subsidiary is not permitted to offer any guarantee of any indebtedness of Pathnet Telecommunications, Inc. or us. In addition to the Lucent credit facility, we intend to enter into similar financing arrangements with other of our equipment vendors. We expect that other vendor financing participants will demand similar restrictions.

### **Network Reliability**

We have constructed our network operations center in Washington, D.C. This network operations center, currently provides real-time, end-to-end monitoring of our network operations 24 hours a day, seven days-a-week, as well as pro-active customer care for all of our customers' services. The network operations center ensures the efficient and reliable performance of the network through pro-active early identification and prevention of potential network disruptions. In addition, our network operations center enables us to schedule and conduct maintenance of our network while minimizing interference with the use of the network by our customers. Specific features provided by our network operations center include network fault and event management, network and service level performance management and analysis as well as remote configuration of all network elements. our network operations center has full fallback capability and it appears to be Year 2000 compliant.

### **Competition**

Competition in the telecommunications industry is intense. In our target markets, we expect to face increasing competition in the areas of price and performance, transmission quality, breadth and reliability of our network, customer service and support, brand recognition and critical relationships with third

parties such as Internet service providers. While we generally will not compete with telecommunications service providers for end user customers, we may compete as a "carriers' carrier" with certain of those providers including IXC's (such as AT&T Corp., MCI WorldCom, Inc. and Sprint Corporation), wholesale providers (such as Qwest Communications International Inc., Williams Communications Group, Inc., DTI Holdings, Inc., Global Crossing Ltd and Level 3 Communications, Inc.), ILECs (such as US West, BellSouth, Bell Atlantic, SBC and GTE Corporation) and CLECs (such as GST Communications, Inc., ITC/Deltacom, Inc. and Metromedia Fiber Network, Inc.) who would otherwise be our customers in our target markets. Other entities which may become our competitors in this regard include communications service providers, cable television companies, electric utilities, wireless telephone operators, microwave carriers, satellite carriers, and large end users with private networks.

Initially, in second and third tier markets our most significant competitors will be ILECs and other CLECs. Many of the largest ILECs will begin offering in the near future some of the products and services we plan to offer and some have already begun to do so. These companies are able to draw upon established networks, well-known brand names, customer loyalty, a pre-existing base of management and employees, and greater access to capital than will likely be available to us. Moreover, many ILECs own the telephone wires they use, and can bundle digital data services, for example, without having to incur the costs of negotiating interconnection agreements. As other industry participants also seek to enter these markets, we will face increasing competition.

Industry consolidation and strategic alliances between participants in the telecommunications industry will also increase the level of competition we will face, particularly as the demand for bundling of services surges. New technologies, further deregulation and other changes in our regulatory environment will create further competitive pressures as we enter our target markets.

### **Government Regulation**

**Overview.** Our telecommunications businesses are subject to varying degrees of federal, state and local regulation. We are a telecommunications carrier under the terms of the federal Communications Act. As a telecommunications carrier, we are subject to FCC and state utility commission regulation of our activities. Local authorities also may regulate the permitting and construction of our telecommunications facilities.

The Telecommunications Act created a uniform national policy in favor of competition in all telecommunications market segments. As described below, the rules and policies implementing the Telecommunications Act remain subject to agency action and litigation at both the federal and state level. We nonetheless believe that the national policy in favor of competition that was created by the Telecommunications Act will lead to increased market opportunities for us. Because these opportunities require additional agency action before the Telecommunications Act is fully implemented, and because these actions may be subject to court review, we cannot predict the pace at which the law will be fully implemented.

We are required to file federal and state tariffs describing the prices, terms and conditions of our services, and these tariffs are subject to varying degrees of regulatory oversight and approval. We must also comply with state and local license or permit requirements relating to the installation and operation of our network. Burdensome license, permit or other regulatory requirements or developments could make it more difficult for us to comply with these laws and regulations.

The FCC and state public service commissions generally have the right to impose sanctions,



forfeitures, or other penalties mandating refunds if a carrier fails to comply with applicable rules. We cannot assure you that regulators or such third parties will determine that we have complied with all applicable laws and regulations. Any proceedings against us could have a material adverse effect on our business, financial condition, or results of operations.

**Federal Regulation.** The FCC regulates interstate and international telecommunications services, and it also regulates the holders of radio licenses. We are subject to FCC regulation as a common carrier, which means that we are subject to longstanding general requirements that our rates be "just and reasonable" and that we not engage in "unjust or unreasonable discrimination" in serving the public. As a common carrier, we also must file certain periodic reports and applications with the FCC, and the FCC has jurisdiction to act on certain complaints for failure to comply with regulatory obligations. We also are required to file basic tariffs at the FCC for our provision of telecommunications services generally, although those tariffs are not subject to pre-effective review and can be amended on one day's notice. We are subject to the licensing processes of the FCC for the use of our microwave licenses. We also generally must apply to the FCC for its consent before assigning a radio license or transferring control (for example, through the sale of stock) of any company holding radio licenses or common carrier authorizations.

We are not, however, subject to the particular laws and FCC regulations imposed by the Telecommunications Act on ILECs, which are the existing local telephone companies including, among others, the former Bell operating companies and GTE. These regulations have provided, and we believe they will continue to provide, significant opportunities for us to compete with ILECs for the provision of competitive telecommunications services. These laws and regulations require ILECs to:

- Provide "physical collocation" to competitors, a requirement that permits us and other similarly licensed common carriers to install and maintain our own network termination equipment at ILEC central offices;
- "Unbundle" components of their local service networks in a nondiscriminatory manner so that we and other new competitors can obtain network facilities, equipment, features, functions and capabilities at cost-based prices (which may include a reasonable profit);
- Permit us and other competitors to "interconnect" with ILEC facilities at any technically feasible point within their networks, at prices based on cost (which may include a reasonable profit);
- Engage in "reciprocal compensation" for the exchange of telecommunications traffic, an obligation that requires ILECs and new competitors to complete calls originated by competing carriers under reciprocal arrangements at prices based on a reasonable approximation of incremental cost, or through the mutual exchange of traffic without explicit payment;
- Establish wholesale prices for their services to promote resale of services and facilities by new competitors;
- Establish "number portability" so that customers can maintain their existing phone numbers when they switch from one telecommunications provider to another without impairing quality, reliability or convenience;
- Establish "dialing parity" so that customers will not detect a difference in quality or complexity in dialing telephone numbers or accessing operators and emergency services; and

- Provide nondiscriminatory access to telephone poles, ducts, conduits and rights of way.

Applicable FCC regulations require ILECs to negotiate in good faith with carriers requesting any of the above arrangements. If the negotiating carriers cannot reach agreement in a prescribed time, either carrier may request binding arbitration of the disputed issues by a state regulatory commission. This set of obligations provides significant market opportunity for new competitors, but, as discussed below, we cannot assure you that the various government agencies responsible for implementing these pro-competitive policies and requirements will do so in a timely and effective manner.

The Telecommunications Act requires the FCC to establish rules and regulations to implement its local competition provisions. In August 1996, the FCC issued rules governing interconnection, resale, unbundled network elements, the pricing of those facilities and services, and the negotiation and arbitration procedures that would be utilized by states to implement those requirements. These rules, which were generally favorable to new competitors, were vacated in part by a July 1997 ruling of the United States Court of Appeals for the Eighth Circuit. On January 25, 1999, the United States Supreme Court issued an opinion upholding the authority of the FCC to establish rules, including pricing rules, to implement statutory provisions governing both interstate and intrastate services under the Telecommunications Act. The Court also upheld rules allowing carriers to select provisions from among different interconnection agreements approved by state commissions for the carriers' own agreements (the "pick-and-choose" rule) and a rule allowing carriers to obtain combinations of unbundled network elements.

The Supreme Court, however, vacated the FCC rule setting forth the specific unbundled network elements that ILECs must make available, finding that the FCC had failed to apply the appropriate statutory standard. On November 5, 1999, the FCC responded to the Court's decision by issuing a decision that maintains competitors' access to a wide variety of unbundled network elements. Six of the seven unbundled elements the FCC had originally required carriers to provide in its 1996 order implementing the Telecommunications Act remain available to competitors. These elements are loops, including loops used to provide high-capacity and advanced telecommunications services; network interface devices; local circuit switching, subject to restrictions in major urban markets; dedicated and shared transport; signaling and call-related databases; and operations support systems. The FCC removed access to operator and directory assistance service from the list of available unbundled network elements. In addition, the FCC added to its list certain unbundled network elements that were not at issue in 1996. These elements include subloops, or portions of loops, and dark fiber loops and transport. The FCC did not, however, require ILECs to unbundle facilities used to provide Digital Subscriber Line service (packet switches and digital subscriber line access multiplexers). The FCC did not decide, but sought additional information on, the question of whether carriers may combine certain unbundled network elements to provide special access services to compete with those provided by the ILECs. The ability to obtain unbundled network elements is an important element of our business, and we believe that the FCC's actions in this area have generally been positive. However, we cannot predict the extent to which the existing rules will be sustained in the face of additional legal action and the scope of the rules that are yet to be crafted by the FCC. For example, the FCC may restrict the use of unbundled network elements for the provision of services affording long distance companies access to local telephone networks, which would reduce our competitive price advantage and limit the market opportunities in that segment of the telecommunications market.

The rates charged for interconnection and unbundled network elements we require vary greatly. These rates are subject to the approval of state regulatory commissions, through approval processes that

typically involve a lengthy review of the rates proposed by the ILECs in each state. The final rates approved typically depend on the ILECs' initial rate proposals and the policies of the state public utility commission. These rate approval proceedings are time-consuming and expensive. Recurring and non-recurring charges for telephone lines and other unbundled network elements may increase based on the rates proposed by the ILECs and approved by state regulatory commissions from time to time, which would have a material adverse effect on the results of our operations. Moreover, because the cost-based methodology for determining these rates is still subject to judicial review, there is great uncertainty about how these rates will be determined in the future.

Under the rules adopted by the FCC pursuant to the Telecommunications Act, we have entered into collocation agreements with two major ILECs (BellSouth and USWest) covering 17 states. These agreements include the provision of unbundled network elements to be used in connection with competitive telecommunications services. We have also entered into a collocation agreement with another existing ILEC, BellSouth, covering 9 states. We expect these collocation agreements to be part of the more comprehensive interconnection agreements with these ILECs that are currently under negotiation. In addition, we are negotiating additional collocation agreements in other states. We have negotiated with two ILECs for the provision of unbundled network elements to be used in connection with competitive telecommunications services. We expect the pace of these negotiations to continue for the foreseeable future. Although we expect, based on our experience thus far, that such negotiations will yield acceptable agreements that will permit us to implement our business plan on schedule, we cannot predict the extent to which ILECs interpreting the FCC regulations may seek to frustrate our collocation plans or the extent to which we will need to seek arbitration or commence litigation to achieve our goal. If we are unable to enter into, or experience a delay in obtaining, interconnection agreements, this inability or delay may materially and adversely affect our business and financial prospects.

The FCC has been reviewing the policies and practices of the ILECs with the goal of facilitating the efforts of telecommunications companies to obtain access to central office space and other network facilities more easily and on more favorable terms. On March 31, 1999, the FCC adopted rules to make it easier and less expensive for telecommunications companies to obtain central office space and to require ILECs to make new alternative arrangements for providing central office space. However, the FCC's new rules have not been uniformly implemented in a timely manner and may not ultimately enhance our ability to obtain central office space. Difficulties we experience in obtaining access to and interconnection with the ILECs' facilities can negatively impact our future plans for providing certain services.

Our expected provision of DSL is largely unregulated by the Telecommunications Act or the FCC because we, and the telecommunications companies that are our customers, are not ILECs. Moreover, our customers providing DSL service to end users, such as Internet service providers, are unregulated "information services providers." The FCC affirmed in a report adopted on April 10, 1998, that Internet service providers will not be subject to regulation as telecommunications carriers under the Telecommunications Act. They thus will not be subject to universal service subsidies and other regulations. We cannot, however, assure you that neither Congress nor the FCC will alter that regulatory scheme in the future. Further, in August 1998, the FCC proposed new rules that would allow ILECs to provide their own DSL services through separate affiliates that are not subject to ILEC regulation. Although the FCC recently decided some of the other issues raised in that proceeding, the question of whether ILECs can provide unregulated DSL services through a separate affiliate remains unresolved. Some members of Congress also have expressed interest in giving ILECs additional pricing flexibility

for high speed data services and expanding the geographic area in which ILECs may offer these services to their customers. Any expansion of ILECs' ability to offer high speed data and Internet services may have an adverse impact on our business. On November 18, 1999, the FCC decided to require ILECs to share telephone lines with DSL providers, an action that may foster competition by allowing competitors to offer DSL services without the purchase their customers to having to a second telephone line. Whether this development will be implemented in an effective way remains to be seen. Moreover, it is impossible to predict whether the FCC or Congress may change the rules under which these services are offered and, if such changes are made, the extent of the impact of such changes on our business.

The Telecommunications Act obligates the FCC to establish "universal service" mechanisms to ensure that certain subscribers living in rural and high-cost areas, as well as certain low-income subscribers, continue to have access to telecommunications and information services at prices reasonably comparable to those charged for similar services in urban areas. These mechanisms also are meant to foster the provision of advanced telecommunications services to schools, libraries and rural health-care facilities. Under the rules adopted by the FCC to implement these requirements, we and all other telecommunications providers will be required to contribute to a fund to support universal service. The amount that we must contribute to the federal universal service subsidy will be based on our share of specified defined telecommunications end-user revenues. Therefore, it is difficult to predict in advance the precise contributions that we will be required to make.

The FCC regulates the fees that local telephone companies charge long distance companies for access to their local networks. These fees are commonly called access charges. The FCC is currently considering a proposal, supported by parts of both the local and long distance telephone industries, that would restructure and most likely significantly reduce access charges. Changes in the access charge structure could fundamentally change the economics of some aspects of our business. Any material reduction in the access charges imposed by local telephone companies could significantly reduce our price advantage in the market for services affording long distance companies access to local telephone networks.

As an enhancement to our local access services, during the second half of 2000, we expect to begin marketing and selling DSL services to our second and third tier markets. To provide unbundled DSL capable lines to connect each customer to our equipment, we will use networks owned by ILECs. The terms upon which we connect our network to ILECs' networks are specified in interconnection agreements that we must negotiate with the ILECs operating in our existing and target markets. Federal law requires ILECs to provide access to their networks through interconnection agreements and to offer network elements to other telecommunications carriers at rates which generally must be cost-based and nondiscriminatory. However, we may be unable to negotiate interconnection agreements on favorable terms. The failure of ILECs to comply with their obligations under these interconnection agreements could result in customer dissatisfaction and the loss of potential customers.

We also are regulated by the FCC as the holder of a substantial number of common carrier fixed point-to-point microwave licenses that we use on the wireless portion of our network. Under the FCC's rules, we must coordinate our proposed frequency use with other existing users of the spectrum to prevent interference. After completing that process, we (and, in some cases, our co-development partners) must apply to the FCC for the issuance of a license to permit us to transmit information on the frequencies we desire to use. To obtain a license we must demonstrate that the owner of the transmission site has complied with the reporting, notification and technical requirements of the Federal Aviation Administration for the construction, installation, location, lighting and painting of transmitter towers and

antennae like ours. Once the license is obtained, we must make routine regulatory filings and obtain the FCC's prior consent for any assignment of the license or any substantial change in control of the entity holding the license and for certain modifications to a licensed facility. We cannot assure you that we, or any of our co-development partners who desire to be the licensee for their portion of our network, will obtain all of the licenses or approvals necessary for the operation of our business, the transfer of any license or the modification of any facility, or that the FCC will not impose burdensome conditions or limitations on any such license, transfer or approval.

Our ownership also is regulated by the FCC to ensure that we do not exceed the foreign ownership restrictions imposed by the Communications Act. Under the Act, we cannot increase our foreign ownership to a level greater than 25% without obtaining prior FCC consent. The FCC has determined that it will authorize a higher level of foreign ownership, up to 100%, on a streamlined basis where the foreign ownership is by citizens of, or companies organized under the laws of, World Trade Organization member states. (A more demanding public interest showing is required by proposals to increase foreign ownership by citizens or countries of non-WTO member states.) We currently comply with the 25% cap on foreign ownership, and we will monitor foreign investment to ensure that we do not exceed that benchmark without obtaining appropriate FCC consent. These requirements may, in some circumstances, be applied to our co-development partners as well. If a co-development partner were to choose to hold the relevant license itself, and not through a holding company, that co-development partner would be subject a provision that limits direct foreign ownership of FCC licenses to 20%. The FCC does not have discretion to waive this limitation. If a co-development partner exceeded the 20% limitation it would be required to reduce its foreign ownership in order to obtain or retain its license.

**State Regulation.** The Telecommunications Act preempts state statutes and regulations that restrict the provision of competitive local telecommunications services. State commissions can, however, impose reasonable terms and conditions upon the provision of telecommunications service within their respective states. States also can require that telecommunications providers apply for and obtain a certificate of public convenience and necessity or other authorization prior to commencing service in their respective states. We are in the process of becoming certified, to the extent such certification is required, in the 48 contiguous states and the District of Columbia as a competitive local exchange carrier ("CLEC") or other competitive telecommunications carrier under the regulations of each state's regulatory commission. We currently are authorized or permitted to provide at least a portion of our proposed services in thirteen states: Colorado, Florida, Idaho, Indiana, Iowa, Michigan, Minnesota, Montana, Nebraska (local access services only), Oregon and Texas, Wisconsin and Wyoming (long distance services only). We have pending applications before an additional eight state commissions. Although we do not anticipate any issues that would prevent us from obtaining authorization as a competitive telecommunications carrier in each of the states in which we will apply, we cannot assure you that all required state authorizations will be granted.

In most states, we are required to file tariffs setting forth the general terms, conditions and prices for services classified as intrastate by the particular state commission in question. Most states require us to list the services provided and the specific rate for each service. Under various states' rules, however, we have regulatory flexibility to set price ranges for specific services and, in some cases, prices can be set on an individual customer basis. We also may be required to file applications with some states for the assignment of our state certifications to any other entity and for any transfer of substantial control that we decide to undertake in the future. Some states also may require a filing prior to the issuance of substantial debt or equity securities or other transactions that would result in a lien upon the property we

use to provide intrastate telecommunications services. States generally require us to file various reports and pay certain fees, including state universal service subsidies. Like the FCC, most state commissions are empowered to consider complaints filed against carriers subject to their jurisdiction. We cannot assure you that our state certificates will not be revoked or amended by state commissions.

**Local Regulation.** We may be required to obtain local permits for street opening and construction permits to install and expand fiber optic networks. Local zoning authorities often regulate our use of towers for microwave and other telecommunications sites. We also are subject to general regulations concerning building codes and local licensing. The Telecommunications Act requires that fees charged to telecommunications carriers be applied in a competitively neutral manner, but there can be no assurance that ILECs and others with whom we will be competing will bear costs similar to those we will bear in this regard.

**Other Laws and Regulations.** Although the foregoing discussion provides an overview of the major regulatory issues that confront our business, this discussion does not attempt to describe all current and proposed federal, state and local rules and initiatives affecting the telecommunications industry. Other federal and state laws and regulations are currently the subject of judicial proceedings and proposed additional legislation. In addition, some of the FCC's rules implementing the Telecommunications Act will be subject to further judicial review and could be altered or vacated by courts in the future. We cannot predict the ultimate outcome of any such further proceedings or legislation.

### **Intellectual Property**

We use the name "Pathnet" as our primary business name and service mark, and have registered that name with the United States Patent and Trademark Office. In addition, we have registered our service mark "A NETWORK OF OPPORTUNITIES" and our logo with the United States Patent and Trademark Office.

We regard our products, services and technology as proprietary and we attempt to protect them with patents, copyrights, trademarks, trade secret laws, restrictions on disclosure and other methods. These methods may not be sufficient to protect our technology. We also enter into confidentiality or license agreements with our employees and consultants, and generally control access to and distribution of our documentation and other proprietary information. Despite these precautions, it may be possible for a third party to copy or otherwise obtain and use our products, services or technology without authorization, or to develop similar technology independently.

We currently have a patent application pending and we intend to prepare additional applications and seek patent protection for our systems to the extent possible. These patents may not be issued to us, and if issued, they may not protect our intellectual property from competition that could seek to design around or invalidate these patents.

### **Employees**

As of January 31, 2000, we employed 126 people. As needed, we also hire temporary employees and independent contractor computer programmers. In connection with our growth strategy, we anticipate hiring a significant number of additional personnel in sales and other areas of our operations in the near future. Our employees are not unionized, and we believe our relations with our employees are good. Our success will continue to depend in part on our ability to attract and retain highly qualified employees. See "*RISK FACTORS — Risks Relating to Our Company Operations.*"

## **ITEM 2. PROPERTIES**

Our network and our component assets are the principal properties that we own. Our installed fiber optic cable is laid on rights of way held by us or our co-development partners, and our digital wireless network is constructed on our leasehold interests in telecommunications infrastructure.

Our corporate headquarters are located in Washington, D.C., and we lease this space from 6715 Kenilworth Avenue General Partnership, under a Lease Agreement dated August 9, 1997. Recently, we executed a lease with 11720 Sunrise Corp., L.L.C. for approximately 40,000 square feet of office space in Reston, Virginia which will become our new headquarters in the first half of 2000. We also lease office space in Richardson, Texas under a lease that expires in 2003.

We believe that all of our properties are well maintained.

## **ITEM 3. LEGAL PROCEEDINGS**

From time to time, we are a party to routine litigation and proceedings in the ordinary course of business. We are not aware of any current or pending litigation to which we are or may be a party that we believe could materially adversely affect our financial position, results of operations or cash flows.

## **ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS**

During the fourth quarter of the fiscal year covered by this Report on Form 10-K, on December 31, 1999, the Company solicited written consents from the holders of the Company's Series A Convertible Preferred Stock, Series B Convertible Preferred Stock and Series C Convertible Preferred Stock (collectively the "Stockholders") to (i) approve all actions taken by the Board of Directors of the Company during the period from May 1, 1999 through December 31, 1999 and (ii) approve and ratify certain agreements and arrangements entered into by the Company in the ordinary course of business during the period from July 1, 1999 through December 31, 1999. Effective December 31, 1999, the Company received written consents approving such proposals from Stockholders representing 10,784,279 votes with Stockholders representing 5,080,436 votes abstaining.

## **PART II**

### **ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY AND RELATED STOCKHOLDER MATTERS**

The Company has authorized 60,000,000 shares of Common Stock for which there is no established public trading market. As of February 15, 2000 there were 7 record holders of the Company's Common Stock. As of December 31, 1999, stock option awards to purchase 2,675,597 shares of Common Stock were outstanding.

The Company has not paid any cash dividends on its Common Stock in the past and does not anticipate paying any cash dividends on its Common Stock in the foreseeable future. Further, the terms of the Indenture by and between the Company and The Bank of New York, dated April 8, 1998 (the "Indenture") relating to the Company's 12 ¼% Senior Notes due 2008 restrict the ability of the Company to pay dividends on the Common Stock, as described in Management's Discussion and Analysis of Financial Condition and Results of Operations, as well as in Note 8 to the Company's Financial Statements included in Item 14 elsewhere in this Annual Report on Form 10-K.

### **ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA**

We present below selected historical consolidated financial information for Pathnet and the pro forma balance sheet data for Pathnet Telecom. The summary historical statements of operations data for the years ended December 31, 1997, 1998 and 1999 and for the period from August 25, 1995 (the date of Pathnet's inception) to December 31, 1999 and the summary historical balance sheet as of December 31, 1999 have been derived from our audited financial statements that are included elsewhere in this Annual Report on Form 10-K. The summary historical statement of operations data for the period from August 25, 1995 (date of our inception) to December 31, 1995 and for the year ended December 31, 1996 and the balance sheet data as of December 31, 1995, 1996 and 1997 have been derived from Pathnet's audited financial statements that are not included elsewhere in this Annual Report on Form 10-K. The unaudited pro forma balance sheet data as of December 31, 1999 gives effect to the contribution and reorganization transaction as if it occurred on January 1, 1999. We have provided the unaudited pro forma balance sheet data for informational purposes only.



	Period from August 25, 1995 (date of inception) to December 31,					Period from August 25, 1995 (date of inception) to December 31,	
	1995	1996	1997	1998	1999	1999	
<b>Statements of</b>							
<b>Operations Data:</b>							
Revenue.....	\$ —	\$ 1,000	\$ 162,500	\$ 1,583,539	\$ 3,311,096	\$ 5,058,135	
Operating expenses:							
Cost of revenue .....	—	—	—	7,547,620	12,694,909	20,242,529	
Selling, general and Administrative .....	429,087	1,333,294	4,247,101	9,615,867	14,669,747	30,295,096	
Contribution and Reorganization expenses .....	—	—	—	—	1,022,998	1,022,998	
Depreciation and amortization expense.....	352	9,024	46,642	732,813	6,204,381	6,993,212	
Total operating expenses.....	429,439	1,342,318	4,293,743	17,896,300	34,592,035	58,553,835	
Net operating loss.....	(429,439)	(1,341,318)	(4,131,243)	(16,312,761)	(31,280,939)	(53,495,700)	
Interest expense(a) .....	—	(415,357)	—	(32,572,454)	(41,010,069)	(73,997,880)	
Interest income .....	2,613	13,040	159,343	13,940,240	13,111,953	27,227,189	
Write off of initial public offering costs.....	—	—	—	(1,354,534)	—	(1,354,534)	
Other income (expense), net .....	—	—	(5,500)	2,913	142,743	140,156	
Net loss.....	<u>\$ (426,826)</u>	<u>\$ (1,743,635)</u>	<u>\$ (3,977,400)</u>	<u>\$ (36,296,596)</u>	<u>\$ (59,036,312)</u>	<u>\$ (101,480,769)</u>	
Basic and diluted loss per common share .....	\$ (0.15)	\$ (0.60)	\$ (1.37)	\$ (12.51)	\$ (20.14)		
Weighted average number of common shares outstanding ..	2,900,000	2,900,000	2,900,000	2,902,029	2,931,644		

	As of December 31,					
	1995	1996	1997	1998	1999 Historical	1999 Pro Forma (b) (unaudited)
<b>Balance Sheet Data:</b>						
Cash, cash equivalents and Marketable securities excluding marketable securities pledged as collateral (b) .....	\$ 82,973	\$ 2,318,037	\$ 7,831,384	\$ 227,117,417	\$ 138,402,131	\$ 170,448,726
Property and equipment, net .....	8,551	46,180	7,207,094	47,971,336	131,928,365	131,928,365
Intangible assets – rights of way .....	—	—	—	—	—	187,275,006
Total assets .....	91,524	2,365,912	16,097,688	365,414,129	320,535,987	547,188,488
Long-term obligations (c) .....	—	—	—	346,212,125	349,714,404	353,989,404
Total liabilities .....	17,350	145,016	5,892,918	366,492,370	380,303,073	383,749,675
Redeemable preferred stock .....	500,000	4,008,387	15,969,641	35,969,639	35,969,639	37,871,959
Stockholders' equity (deficit) ...	(425,826)	(1,787,471)	(5,764,871)	(37,047,880)	(95,736,725)	125,566,854

(a) The 1996 expense relates to the beneficial conversion feature of a loan at December 31, 1996.

(b) The unaudited pro forma balance sheet data as of December 31, 1999 gives effect to the contribution and reorganization transaction as if it occurred on January 1, 1999. The unaudited pro forma balance sheet was derived by adjusting Pathnet's historical balance sheet as of December 31, 1999 to reflect the transaction described below:

- Contribution of over 12,000 route miles of rights of way with an estimated value of \$187 million for 8,511,607 shares of our series D convertible preferred stock.
- Receipt of \$38 million in cash at the initial closing for 1,729,631 shares of our Series E redeemable preferred stock. Another \$25 million in cash (which is excluded from our above pro forma balance sheet data) will be received in exchange for 1,137,915 shares of our Series E redeemable preferred stock (conditioned upon the completion of a fiber optic network segment build that we expect to complete during the first calendar quarter of 2000);

- Exchange of 2,977,593 shares of outstanding Pathnet common stock for 2,977,593 shares of PTI's common stock;
  - Exchange of 5,470,595 shares of Pathnet mandatorily redeemable preferred stock into 15,864,715 shares of PTI's convertible preferred stock;
  - Receipt of \$1 million in cash for options to purchase 1,593,082 shares of PTI's Series E redeemable preferred stock at \$21.97 per share and shares of PTI's common stock at an initial public offering;
  - Receipt of \$4 million in cash for PTI's sale to Colonial of rights in a specified number of conduit miles of PTI's future network;
  - Receipt of \$275,000 in rights of way for PTI's sale to Colonial of rights in a specified number of conduit miles of PTI's future network; and
  - Our payment of a 2.5% consent fee to holders of the notes (assuming all holders of notes consent to the contribution and reorganization transaction) of approximately \$8.8 million in the aggregate.
- (c) Cash, cash equivalents and marketable securities include investments in marketable securities available for sale.
- (d) Long term obligations include other non-current liabilities of \$3,092,779.
- (e) We have not included unaudited pro forma statement of operations information to give effect to the contribution and reorganization transaction as if it occurred on January 1, 1999. An unaudited pro forma statement of operations would reflect only amortization expense of approximately \$939,000 of deferred financing cost attributable to the consent fee that we plan to pay in connection with the contribution and reorganization transaction and approximately \$2,278,000 of anticipated transaction costs, of which \$1,898,000 will be expensed as incurred and the remainder offset against stockholders' equity (deficit). The deferred financing cost will be amortized and charged to interest expense over the remaining life of the notes. Generally, we do not begin amortizing rights of way used in our network until the network is completed and available for use. As of December 31, 1999, none of the rights of way contemplated by the contribution and reorganization transaction were used in our fiber optic network. Because the amortization of the deferred financing cost and expensed transaction costs would have represented the only pro forma adjustments to the statement of operations data, we have not presented unaudited pro forma statement of operations data. Instead, we have adjusted our pro forma deficit accumulated during the development stage to account for these expenses.

## ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

*Our actual results could differ materially from those anticipated in forward-looking statements made in this section as a result of various factors, including those described in the section of this Annual Report on Form 10-K entitled "RISK FACTORS." You should assume for purposes of this section that all references to our business, our actions or conditions affecting us prior to the date of this prospectus are references to Pathnet's business, actions or conditions affecting Pathnet. Unless we indicate otherwise, references to our future business, strategies, or plans, are references to our consolidated business, strategies or plans, including Pathnet Telecommunications, Inc. and its other future subsidiaries. You should read the following discussion and analysis in conjunction with our combined financial statements and related notes included in this Annual Report on Form 10-K. You can find additional information concerning our businesses and strategic investments and alliances in the section of this Annual Report on Form 10-K entitled "BUSINESS."*

### Overview

Since our inception on August 25, 1995, our principal activities have included:

- Entering into strategic relationships with owners of telecommunications assets and co-development partners;
- Developing and constructing our digital backbone network;
- Negotiating collocation and interconnection agreements and installing collocations and interconnections off our backbone network;
- Designing and developing our network architecture and operations support systems, including the buildout and launch of our 24-hour network operations center;
- Raising capital and hiring management and other key personnel;
- Developing "leading edge" products and services; and
- Procuring governmental authorizations.

In November 1999 we signed a contribution and reorganization transaction with three new investors, The Burlington Northern and Santa Fe Railway Company, CSX Transportation Company, Inc. and Colonial Pipeline Company. If the conditions to closing are satisfied and the Transaction is concluded, we expect to develop additional backbone network from a pool of right of way miles received in the Transaction — 8,000 of which will have some form of exclusivity. These additional route miles would provide us with the opportunity to develop unique and diverse paths connecting our target markets back to major tier one metropolitan areas.

As of December 31, 1999, our network consisted of over 6,300 wireless route miles providing wholesale transport services to 30 cities and 500 miles of installed unlit fiber. We are constructing an additional 600 route miles of fiber optic network scheduled for completion in the first half of 2000. We have also entered into two additional co-development agreements for the construction of an additional 750 route miles of fiber optic network. During 2000, we intend to deploy additional products and services including bundled wholesale transport and local access services.

We have experienced operating losses since our inception, and we expect these operating losses to continue as we expand our operations. Implementing our business plan will require significant capital expenditures. See "*RISK FACTORS — Risks Relating to Our Financing.*" Our financial performance will vary from market to market, and the time when we will achieve positive earnings before interest, taxes, depreciation and amortization, if at all, will depend on the:

- Size of our target markets;
- Timely completion of backbone routes, collocations and interconnections;
- Cost of the necessary infrastructure;
- Timing of and barriers to market entry; and
- Commercial acceptance of our services.

### Sources of Revenue

**Infrastructure Services.** We employ a "smart build" approach in the development of our network that includes determining the level of customer demand on a route before construction and, in certain cases, entering into pre-construction sales of dark fiber and conduit. We can sell indefeasible rights of use or leases of fiber or conduit along a segment of our network at a fixed price. Under our dark fiber and conduit sales agreements, we expect to receive all of the proceeds relating to the sale of the dark fiber and conduits upon completion of the route and acceptance by the customer. Our dark fiber and conduit sale business is becoming increasingly competitive as other carriers build and expand their networks. To expedite infrastructure development and decrease development risk, we have sought, and in the future will continue to seek, co-developers to share the project construction costs. We have pursued co-marketing arrangements to facilitate selling the assets along network segments and we may continue to do so in the future.

**Management Services.** To date, we have generated revenues primarily from services related to the construction of our digital network. We expect to continue construction of our digital network with co-development partners when these projects will allow us to retain bandwidth, fiber or conduit assets on routes that complement and reduce the costs of completing our network. We anticipate that the percentage of revenues that we receive from management services will decline as we near the completion of our network.

**Wholesale Transport and Local Access Services.** We provide inter-city and local wholesale transport services and local access services to our customers on a long-term or month-to-month basis. We plan to bundle local access services with our wholesale transport services to provide low cost, end-to-end solutions for our customers. Our service agreements with customers are generally leases of capacity which provide for monthly payments due in advance on a fixed-rate basis. We price our customer contracts according to the capacity, the length of the circuit used, the term of the contract and the extent of value added services provided. Nonrecurring revenues include installation and activation charges for new customers. We seek to price our services competitively in relation to those of the ILECs and other competitive telecommunications companies in our targeted underserved and second and third tier markets.

Although pricing will be an important part of our strategy, we believe that customer relationships, customer care and consistent quality will be the key to generating customer loyalty. During the past

several years, market prices for many telecommunications services have been declining — a trend we believe will likely continue. As prices decline for any given service, we expect that the total number of customers and the proportion of our customers purchasing our bundled services will increase.

## **Operating Expenses**

**Cost of Revenue.** The primary components of our cost of services to date have been costs relating to network engineering, operations and maintenance. With expected growth of our bundled wholesale transport and local access services we expect components such as access costs (including fees for use of the local loop, rent, power and other fees charged by ILECs, competitive telecommunications companies and other providers) and costs associated with the provision of services to comprise a greater portion of our costs of service.

**Selling, Operations and Administration.** We are building a small and focused sales and marketing department that should allow us to maintain a low ratio of overhead expenses to revenues compared to other telecommunications service providers. Our general and administrative costs include expenses typical of other telecommunications service providers, including office leases, customer care, billing, corporate administration and human resources. We expect that these costs will grow significantly as we expand our operations and that our administrative overhead will be a large portion of these expenses. However, we expect these expenses to decline as a percentage of our revenue as we build our customer base and increase the number of customers connected to our network.

**Depreciation and Amortization.** Because we are primarily a facilities-based wholesale provider, expenses associated with depreciation of property, plant and equipment will be a substantial ongoing expense for us. We expect depreciation and amortization expense to increase significantly as more of our network becomes operational and as we increase capital expenditures to expand our network. Depreciation and amortization expense will include:

- Depreciation of network infrastructure equipment;
- Depreciation of improvements to central offices, other collocations and related equipment;
- Depreciation of network control center facilities, furniture, fixtures and corporate facilities;
- Amortization of rights of way; and
- Amortization of software.

## **Results of Operations**

### **Year ended December 31, 1999 compared to year ended December 31, 1998**

During the year ended December 31, 1999, we continued to focus on :

- developing relationships and strategic alliances with owners of valuable telecommunications assets such as rights of way and with co-development partners,
- building out our network,
- obtaining the regulatory status and entering into interconnection agreements in each of our target markets to enable us to obtain unbundled network elements and central office space from the ILECs, and
- developing our infrastructure including the hiring of key management personnel.

**Revenue.** For the twelve months ended December 31, 1999 and 1998, we generated revenues of approximately \$3.3 million and \$1.6 million, respectively. This increase is attributable to revenues from our sales of telecommunications services, which were \$2.4 million in 1999 compared with approximately \$165,000 in 1998. We expect that a substantial portion of our future revenue will be generated from our sale of wholesale transport services, local access services and backbone infrastructure services.

**Operating Expenses.** For the twelve months ended December 31, 1999 and 1998, we incurred operating expenses of approximately \$34.6 million and \$17.9 million, respectively. The increase is primarily a result of additional staff costs incurred in developing our infrastructure, depreciation expenses as more of our network came on line and administrative costs related to obtaining regulatory status. Cost of revenue reflects direct costs we incurred in performing construction and management services and providing telecommunications services.

**Interest Expense.** Interest expense for the twelve months ended December 31, 1999 and 1998 was approximately \$41.0 million and \$32.6 million, respectively. Interest expense primarily represents interest on the notes issued in April 1998 together with the amortization expense related to bond issuance costs in respect of the notes and the amortization expense related to deferred financing costs.

**Interest Income.** Interest income for the twelve months ended December 31, 1999 and 1998 was approximately \$13.1 million and \$13.9 million, respectively. The decrease in interest income reflects a decrease in cash and cash equivalents and marketable securities as those funds were used in building our network, funding operations, and making interest payments on our notes in April and September of 1999.

#### **Year ended December 31, 1998 compared to year ended December 31, 1997**

During the twelve months ended December 31, 1998, we focused on (1) developing relationships and strategic alliances with owners of valuable telecommunications assets such as rights of way and with co-development partners, (2) building out our network, and (3) hiring key management and other personnel.

**Revenue.** Substantially all of our revenue for the year ended December 31, 1998 consisted of fees received for services we provided to our wireless co-development partners, including analysis of existing facilities and system performance, advisory services relating to personal communication system (or PCS) provider spectrum relocation matters, and turnkey network construction and management services. For the years ended December 31, 1998 and 1997, we generated revenue of approximately \$1.6 million and \$162,500, respectively. This increase was attributable to fees we received for performing construction and management services primarily for one customer.

**Operating Expenses.** For the twelve months ended December 31, 1998 and 1997, we incurred operating expenses of approximately \$17.9 million and \$4.3 million, respectively. This increase results primarily from accelerating the buildout of our network and additional staff costs incurred in developing our infrastructure. Cost of revenue reflects direct costs we incurred in performing construction and management services and providing telecommunications services.

**Interest Expense.** Interest expense for the twelve months ended December 31, 1998 was approximately \$32.6 million. We had no interest expense for the twelve months ended December 31, 1997. Interest expense primarily represents interest on the notes together with the amortization expense related to bond issuance costs in respect of the notes.

**Interest Income.** Interest income for the twelve months ended December 31, 1998 and 1997 was approximately \$13.9 million and \$159,300, respectively. The increase in interest income represents interest earned on the proceeds of the notes issued in April, 1998.

### **Capital Expenditures**

We have invested a significant amount of capital constructing and deploying our digital network. We intend to continue to expand our network coverage. We plan to add a bundled product comprised of local access and wholesale transport to our existing products. These efforts will require us to fund our operating losses and we will require significant capital to:

- Continue construction and development of our nationwide network infrastructure;
- Purchase and install electronics, transmission and interconnection equipment and other components along the network and as needed to establish the platform for our local access and bundled services;
- Procure, design and construct central office and other collocation and interconnection sites; and
- Continue development of our corporate infrastructure.

Capital expenditures were approximately \$80.2 million for the twelve months ended December 31, 1999. We expect that our capital expenditures will be substantially higher in future periods in connection with the expansion of our network and services in our target markets.

As of December 31, 1999, we had capital commitments of approximately \$89.9 million relating to the development of our network pursuant to existing agreements. From December 31, 1999 until December 31, 2000 we intend to:

- Complete the construction and lighting of network segments to which we are currently committed, including Chicago, Illinois to Aurora (a suburb of Denver), Colorado, Grand Junction, Colorado to Albuquerque, New Mexico and Albuquerque to El Paso, Texas;
- Begin perfection and pre-engineering of selected network segments from the right of way acquired under the Contribution and Reorganization Transaction; and
- Commence construction on up to three additional fiber routes;
- Continue interconnecting and collocating in 60 to 80 of our targeted underserved and second and third tier markets.

## Liquidity and Capital Resources

From inception through December 31, 1999, we financed our operations primarily through private placements of \$36 million of equity securities and \$338.7 million of net proceeds raised from the issuance of the Senior Notes in April 1998. As of December 31, 1999, we had approximately \$138.4 million of cash, cash equivalents and marketable securities to fund future operations. In connection with the Transaction, Colonial is to contribute an aggregate (including both tranches) of \$68 million in cash to us in exchange for shares of our series E convertible preferred stock, rights to a single conduit along the Colonial rights of way and an option to purchase additional shares of PTI's capital stock. The Transaction will bring the total cash equity investment in PTI and its subsidiaries to \$100 million, including \$25 million to be received upon the completion of a fiber optic network during the second calendar quarter of 2000.

In addition, we expect to finance the cost of some of our equipment through vendor financing arrangements. We have negotiated with Lucent a proposed credit facility in which Lucent will, subject to certain conditions (including the closing of the Contribution and Reorganization Transaction), provide us with financing for fiber optic cable that we purchase from them. For a description of the terms and conditions of the proposed financing transaction with Lucent see "*BUSINESS— Proposed Credit Facility with Lucent.*"

We estimate that our current available resources, together with those to be received in the contribution and reorganization transaction, will be sufficient to fund the implementation of our long term business plan, as currently contemplated, including the capital commitments described above, operating losses in new markets and working capital needs through the fourth quarter of 2000. In the event the strategic investment from Colonial is not consummated or is consummated on different terms, this projection of available resources may change. After such time, we expect we will require additional financing, which may include commercial bank borrowings, additional vendor financing or the sale or issuance of equity or debt securities.

Our expectations of our future capital requirements and cash flows from operations are based on current estimates. If our plans or assumptions change or prove to be inaccurate, we may require additional sources of capital or additional capital sooner than anticipated. See "RISK FACTORS — Risks Relating to Our Financing."

## Year 2000 Readiness Disclosure

The Year 2000 issue exists because many computer systems and software applications use two, rather than four, digits to designate a particular year. As a result, these systems and applications may not properly recognize the Year 2000, or process data that includes that date, potentially causing data miscalculations or inaccuracies, operational malfunctions or failures.

**Overview of Our Year 2000 Program.** In the fourth quarter of 1998, we began a corporate-wide program to ready technology systems, non-technology systems and software applications for the Year 2000. We identified all systems and applications that we believe needed to be modified or reprogrammed to achieve Year 2000 compliance and implemented the necessary changes.

In December 1999, we completed the inventory, assessment and remediation of mission critical hardware systems and software applications, including network computing and network systems engineering. We developed and tested contingency plans for the event that certain of our suppliers or



service providers may not have been Year 2000 compliant.

In preparation for the Year 2000 transition, we provided 24 hour coverage from December 31, 1999 through January 3, 2000 in our network operating center and corporate data center. No year 2000 related problems were encountered and no interruption of service occurred.

As part of our Year 2000 plan, we requested confirmation from our communications equipment vendors and other key suppliers, financial institutions and customers that their systems would be Year 2000 compliant. Responses received indicated a high level of Year 2000 compliance at these companies. Although we have incurred no Year 2000 problems to date, we cannot assure you that the systems of companies with which we do business are Year 2000 compliant. If the vendors important to us fail to provide needed products and services, our network buildout and operations could be affected and thereby have a material adverse effect on our results of operations, liquidity and financial condition.

We hired outside consultants to assist us with our Year 2000 compliance, but we relied primarily on our own employees to develop and implement our Year 2000 compliance strategy. Because our existing systems are relatively new, we have not replaced any significant portion of them. As a result our expenditures to implement our Year 2000 plan were not material to date and we do not believe our future expenditures on this matter will be material (remediation costs incurred to date have been less than \$100,000). Such expenditures represented less than 1% of 1999 projected capital expenditures and were funded out of cash flow from operations. To the extent we will have to replace a significant portion of our technology systems, which currently appears unlikely, our expenditures could have material adverse effects on us. As a result, our expenditures to ensure Year 2000 compliance have not been material to date. We expect to continue to use existing employees for the significant part of our Year 2000 compliance efforts.

Due to the general uncertainty inherent in the Year 2000 problem, resulting in large part from the uncertainty of the Year 2000 readiness of third parties, we cannot ensure our ability to timely and cost effectively resolve problems associated with the Year 2000 issue that may adversely affect our operations and business or expose us to third party liability and we have been unable to fully determine the risks associated with the reasonably likely worst case scenario.

### **Risk Factors**

The extent to which the risk factors described in this "RISK FACTORS" section will affect us depend at least in part on the disposition of the contribution and reorganization transaction. If the contribution and reorganization transaction is completed, we and Pathnet Telecommunications Inc. will operate the business on a consolidated basis. We will become a wholly-owned subsidiary of Pathnet Telecommunications, Inc. As a result, risk factors that relate to future business plans would apply to Pathnet Telecommunications, Inc. as well as to us. If the contribution and reorganization transaction is not completed, the risk factors, to the extent they relate to rights of way to be contributed to us in that transaction, will not apply.

### ***Risks Relating to Operations***

If we fail to satisfy the conditions to closing under the Contribution Agreements with BNSF, CSX and Colonial and the Transaction does not take place, the Company's business plan and financial condition will be adversely affected.

The obligations of BNSF, CSX and Colonial to close on the Transaction are subject to a variety of conditions. Among these conditions is the requirement that the holders of a majority of the outstanding amount of the Company's notes consent to the transaction. If these conditions are not satisfied on or before March 31, 2000, then the parties to the Transaction have the right to terminate the agreements. If we are unable to obtain the necessary noteholder consent or fail to satisfy any of the other conditions on or before March 31, 2000, and if the transaction is terminated as a result, the Company will lose access to the additional assets and cash to be contributed in the Transaction, and the Company's current business plan will need to be substantially modified.

**If we are unable to develop the rights of way that we will receive in the contribution and reorganization transaction, or if the development costs more or takes longer than we anticipate, we may not be able to develop all portions of our network or generate the revenues necessary to become profitable.**

Several factors could interfere with our ability to develop or even prevent us from developing the rights of way or portions of those rights of way that are the subject of the contribution and reorganization transaction:

- our inability to obtain property rights from third parties where BNSF, CSX and Colonial do not own outright much of the property over which they are granting us rights of way;
- restrictions imposed by BNSF, CSX, and Colonial to minimize or prevent interference with their primary business operations;
- physical or engineering restrictions;
- terms of existing contractual arrangements between BNSF, CSX or Colonial and third parties, including our competitors; and
- competitive factors, including potential oversupply of communications bandwidth along the segments that we wish to develop.

We cannot assure you that we will obtain the necessary property rights and access to the segments that we wish to develop. If we fail to obtain these rights, we may not be able to develop these rights of way for our network, and our business plans would be impaired. In addition, we cannot predict with certainty the costs of developing segments of our network on these rights of way. These costs could be significantly higher than we anticipate and may be prohibitively expensive.

**If we are unable to complete construction of the network route segment on which Colonial has conditioned the \$25 million second tranche of its investment in our series E convertible preferred stock, we may not receive those funds from Colonial as planned.**

Our contribution agreement with Colonial requires us to complete construction of the Chicago, Illinois to Aurora, a suburb of Denver, Colorado, as a condition to our receiving the second tranche of the Colonial investment. We may be unable to complete this construction within the time frame allotted under the agreement. If we are unsuccessful in building this portion of the network in a timely manner, we will forfeit \$25 million of the funds that we expect to receive in the contribution and reorganization transaction. A loss of these funds could hinder our ability to implement our business plan as currently contemplated.

**We have agreed to indemnify BNSF, CSX and Colonial from certain losses and liabilities in deploying and operating our network, and these losses and liabilities could be significant.**

In the agreements by which we obtain our rights of way we have agreed to release and indemnify BNSF, CSX and Colonial from claims, losses or liabilities resulting from damage to property, personal injury to personnel, and many other circumstances while we construct and operate our network. In some cases, our release and indemnity apply even to circumstances outside of our control, including where the claim, loss or liability arises from the negligence or gross negligence of BNSF, CSX, Colonial or their employees or contractors within their control. While we intend to obtain insurance to address these issues, we cannot ensure that insurance coverage will be available or, if it is available, adequate to cover all of these risks. If our insurance coverage is inadequate, or if coverage is not available for some of these risks, we could be exposed to significant losses and liabilities.

**Our telecommunications network will be constructed on rights of way used for railroad and pipeline purposes and could be damaged or delayed by other business operations conducted along those rights of way.**

BNSF, CSX and Colonial use the rights of way on which we intend to install our telecommunications network for railroad and pipeline purposes. Events could occur, including the derailment of a train, the breach of a pipeline or damage resulting from track or pipeline maintenance or construction, that could interrupt telecommunications services on or otherwise damage our network. If any of those events occur, our ability to provide telecommunications services to our customers could be compromised, and our relationship with those customers could be seriously damaged.

**If we cannot successfully coordinate our network construction and operations with our rights of way providers' existing operations as required under our agreements, we may not be able to develop our network as planned and our revenues could be materially impaired.**

The lease and access agreements we will enter into with BNSF, Colonial, CSX and our other rights of way providers require that we coordinate our network design, construction, deployment, operation and maintenance with the rail, pipeline, utility and other operations of the applicable rights of way providers. Those agreements generally provide that the rights of many providers' operational needs take precedence over our own in terms of scheduling, access time, personnel and other rights. Scheduling conflicts could increase our development or operational costs on particular segments of rights of way, or make deployment along the affected segment commercially impracticable. If we cannot coordinate these activities successfully with the rights of way providers, the development, design, construction, deployment, operation and maintenance of the affected segments of our network could be delayed or become prohibitively expensive.

**We are undertaking a major expansion of the business and we may not be able to manage this expansion effectively given our limited past operating experience.**

Pathnet was incorporated in August 1995 and is a development stage company with only a limited operational history. As of December 31, 1999, we had constructed approximately 6,300 wireless route miles and 500 fiber route miles of our digital network and had completed construction of 40 collocations. To achieve our business plan, we will need to expand our fiber network substantially and at a much faster rate than in prior years.

The success of this expansion will depend upon, among other things, our ability successfully to:

- implement our sales and marketing strategy;
- evaluate markets for our products and services;
- acquire additional rights of way;
- identify profitable network routes;
- secure additional financing for our network deployment;
- reach agreement with a sufficient number of appropriate co-development partners to develop the network necessary to complete our business plan;
- install facilities;
- obtain required government authorizations;
- interconnect to, and collocate with, facilities owned by existing local telephone companies; and
- obtain appropriately priced unbundled network elements and wholesale services from existing local telephone companies.

We must accomplish these activities in a timely manner, at reasonable cost and on satisfactory terms and conditions. As we increase our product and service offerings and expand our network into our targeted markets, there will be additional demands on operating support systems, sales and marketing, administrative resources and network infrastructure. We cannot assure you that we will be able to manage our growth successfully, and if we are unsuccessful in doing so, our business, results of operations and financial condition will be negatively affected. Moreover, because we are expanding our business plan into new markets and technologies not previously used by us, we may not be able to identify and manage all of the material risks that may arise as we pursue this new business plan.

**Developing and expanding our business may subject us to added market and regulatory risks.**

The rights of way acquired in connection with the contribution and reorganization transaction may significantly expand our business, making us more vulnerable to competition from major telecommunications companies and more likely to become the subject of regulatory scrutiny. Increased competition or regulatory burdens could interfere with our ability to capitalize on the expansion of our business.

**Our business plans require us to make significant investments in a rapidly evolving industry and our business and financial performance may suffer if market and technological developments render our chosen technologies and strategies obsolete or unresponsive to market demand.**

Our business strategy is to provide an integrated bundle of telecommunications services and expand our operations and network. To implement this strategy will be investing heavily in a rapidly evolving industry. As a result, our investments will be subject to a variety of risks in addition to those described in the other "risk factors" set forth in this Annual Report on Form 10-K. These additional risks include::

- market pricing pressures for the services and products we offer;
- changes in expenses associated with the construction and expansion of our network and services;

- operating and technical problems;
- availability of additional capital on acceptable terms; and
- variations in market growth rates for our products and services;

These factors could adversely affect our business strategies by increasing the cost and difficulty of implementing our business plans, or making it more difficult for us to generate adequate revenues.

**We may be unable to hire and retain sufficient qualified personnel, and the loss of any of our key employees could materially adversely affect our ability to construct our network, conduct our network operations and implement our sales strategy.**

Our products and services are technical in nature, and the market for employees in the telecommunications industry is competitive and dynamic. As a result, our future success will depend in large part on our ability to attract and retain a substantial number of highly skilled, knowledgeable, sophisticated and qualified managerial, professional and technical personnel. We have experienced, and we expect to continue to experience, significant and increasing competition from other companies in attracting and retaining personnel who possess the skills that we are seeking. We therefore may be unable to attract and retain senior management, other key employees, or other skilled personnel in the future. We depend on these employees to implement our business plan and manage our planned growth successfully, and losing key employees could have a material adverse effect on our ability to implement the essential components of our business plan.

**The loss or interruption of relationships with or services from key suppliers and third party contractors could delay and increase costs associated with the construction of our network.**

We depend on third party suppliers for a number of components and parts used in our network. We may be unable to obtain supplies or services from our usual suppliers for any reasons beyond our control. Although there may be alternative suppliers of components for all of the components and transmission equipment contained in our network or required to offer our products and services, but those alternatives may not be available to us on as favorable terms. Any nationwide shortage, or extended interruption in the supply of any of the key components, change in the pricing arrangements with our suppliers and manufacturers or delay in transitioning a replacement supplier's product into the network could disrupt our operations.

We also use third party contractors to build various segments of our network. If any of these relationships is terminated or a supplier or contractor fails to provide reliable services or equipment, and we are unable to reach suitable alternative arrangements quickly or on favorable terms, we may experience significant delays and additional costs. The failure of our contractors to complete their activities in a timely manner, within anticipated budgets and in accordance with our quality standards and performance criteria, could also delay the completion of our network or make it more costly to construct.

Our failure to identify, deploy and maintain sophisticated billing, customer service and information systems could have a negative effect on our product and service offerings, customer relations and revenues.

We will depend on sophisticated information and processing systems to grow, monitor costs, bill customers, service customer orders and achieve operating efficiencies. As we expand our services and increase our customer base, our need for enhanced billing and information systems will increase. If we are unable to adequately identify our information and processing needs or develop or upgrade systems as necessary, we may not be able to offer services or products that our customers require, our customer relations could be damaged, and our ability to reach our financial and operational objectives could be compromised.

Our Year 2000 compliance efforts may not ultimately prove to be successful, which could materially interfere with our network and other business operations.

The Year 2000 issue is the result of computer programs using two digits, rather than four, to define the applicable year. Because of this programming convention, software, hardware or firmware may recognize a date using "00" as the year 1900 rather than the year 2000. This could result in system failures, miscalculations or errors causing disruptions of operations or other business problems, including, among others, an inability to process transactions, send invoices, or engage in similar normal business activities. As of February 22, 2000, we have not experienced any significant Year 2000 issues. However, we will not be able to fully assess the impact of Year 2000 issues on our business and operations until later this year. If we or our major vendors, other key service providers or customers fail to address adequately their respective Year 2000 issues in a timely manner, we could experience, among other things, interruptions in our network and a decline in sales which would adversely affect our business. The Year 2000 issues and our Year 2000 readiness program are described in further detail above in *"MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS — Year 2000 Readiness Disclosure."*

If we do not successfully manage acquisitions, strategic alliances and joint ventures that we may need to implement our business plan, our financial and operational performance may be adversely affected.

To expand and deploy our network in a timely manner, we may need to acquire other businesses, form strategic alliances or enter into joint ventures that will complement our existing business markets or accelerate our entry into our target markets. These transactions may:

- pose challenges in assimilating the acquired operations and personnel;
- disrupt our ongoing business;
- divert resources;
- create difficulties in maintaining uniform standards, controls, procedures and policies;
- impede management of our growth and information systems;
- present challenges where entering markets in which we have little experience; or
- impair relationships with employees or customers.

We currently have no definitive acquisition agreement in place, although we have had discussions with other companies and will continue to assess opportunities on an ongoing basis. Our failure to implement our expansion and growth strategy successfully would have a material adverse effect on our business, results of operations and financial condition.

### ***Risks Relating to Our Financing***

**We expect negative operating cash flows and substantial operating losses for the foreseeable future.**

We have incurred operating losses and negative cash flow since inception. From August 25, 1995 through December 31, 1999, our operations have resulted in cumulative net losses of \$101.5 million. We expect to incur continued operating losses and negative cash flow as we build our network, offer additional products and services and increase our customer base. These losses will reduce our ability to meet working capital needs and increase our need for external financing to support our objectives. Until and unless we develop an adequate customer base and revenue stream, our capital and other operating expenditures will result in negative cash flow and operating losses. We expect these expenditures to increase as we develop our customer base in existing markets, expand into new markets and diversify our service offerings. We may never develop an adequate customer base, sustain profitability or generate sufficient cash flow to meet our obligations on the guarantees, debt or fund our other business needs. We therefore cannot assure you that we will become profitable in the future.

**We will be guaranteeing and/or incurring a substantial amount of debt that may increase our operating costs and could impair our ability to raise additional required funds, invest in our operations or withstand a decline in projected revenues.**

We currently have, and after the contribution and reorganization transaction has closed we will have, a substantial amount of debt in relation to our stockholders' equity. As of December 31, 1999, we had approximately \$380.3 million of indebtedness outstanding and total stockholders' equity (deficit) of (\$95.7) million. We plan to incur additional indebtedness in developing our business.

The amount of our debt could adversely affect our future prospects by:

- impairing our ability to borrow additional money;
- requiring us to use a substantial portion of our cash flows from operations to pay interest or repay debt which will reduce the funds available to us for our operations, acquisition opportunities and capital expenditures;
- placing us at a competitive disadvantage with companies that are less restricted by their debt arrangements; and
- making us more vulnerable in the event of a downturn in general economic conditions or upon the occurrence of any risks described in this section.

**We may not have sufficient funds from our own cash flow or other sources to service our debt.**

We cannot assure you that we will be able to meet our debt obligations under the guarantees, our notes or otherwise. If we are unable to generate sufficient cash to meet our obligations or if we fail to satisfy the requirements of our debt agreements, we will be in default. A default under the notes, which

may include a material default under other indebtedness, would permit the holders of the notes (and other debt for which we will be directly or indirectly responsible) to require payment before the scheduled due date of the debt, resulting in further financial strain on us and causing additional defaults under our other indebtedness.

**Our inability to obtain additional financing needed in the future may delay or prevent the completion of our network and the roll out of our products and services to our customers.**

We expect to need significant additional capital to complete the buildout of our planned network and fulfill our long-term business strategies. We may be unable to produce sufficient cash flows from ongoing operations to fund our business plan and future growth. This could require us to alter our business plan, including delaying, reducing or abandoning our expansion or spending plans, which could have a material adverse effect on our future revenue prospects or our business.

In addition, we may elect to pursue other business opportunities that could require additional capital investments in our network. If any of these events were to occur, we could be required to sell assets, borrow more money than we currently anticipate, issue additional debt or equity securities, refinance or restructure our debt or enter into joint ventures.

Our ability to arrange financing depends upon many factors, including:

- general economic and capital markets conditions, especially the non-investment grade debt market;
- conditions in the telecommunications industry;
- regulatory, technological or competitive developments;
- investor confidence and credit availability from banks or other lenders;
- the success of our network and demand for our products and services;
- cost overruns and unforeseen delays; and
- provisions of tax and securities laws that affect capital raising activities.

Our inability to raise additional funds would have an adverse effect on our ability to complete our network. If we decide to raise additional funds by incurring more debt, we may become subject to additional or more restrictive financial covenants. These covenants or other terms of the additional financing may place significant limits on our financial and operating flexibility, or may not be acceptable to us. Our failure to raise sufficient funds when needed and on reasonable terms may require us to modify or significantly curtail our business expansion plans. These modifications could have a material adverse impact on our growth and ability to compete and to service our existing debt.

**Although the Company notes are referred to as "senior notes" they are, and will continue to be, effectively subordinated to our secured debt and the secured and unsecured debt of our subsidiaries.**

The notes are unsecured and therefore are and will following the closing of the Transaction, continue to be effectively subordinated to any secured debt we may incur to the extent of the value of the assets securing that debt. In the event of a default, foreclosure, bankruptcy or similar proceeding involving us, our assets that serve as collateral will be available to satisfy the obligations under any secured debt before any payments are made on the notes. If there is any shortfall after the foreclosure on these assets,



our secured creditors would have a claim for that shortfall ranking equally with the noteholder's claim against us under the guarantees. In addition we may secure any additional debt with our assets or borrow through subsidiaries. Those secured assets, or the assets of our borrowing subsidiaries, will be available to other creditors before they are available to the noteholders.

**Following the closing of the Transaction we will depend on payments from our subsidiaries to repay our debts, and other creditors of our subsidiaries other than Pathnet will have claims against the assets of those subsidiaries that are senior to the notes.**

After the contribution and reorganization transaction has closed, we will be a holding company that receives a substantial part of our revenues from our subsidiaries. Our ability to obtain payments from our subsidiaries may be restricted by the profitability and cash flows of our subsidiaries and laws relating to the payment of dividends by a subsidiary to its parent company. If our subsidiaries are unable to pay dividends, we may be unable to service our debt, including our obligations under the supplemental indenture and the guarantees. If any of our subsidiaries experiences a bankruptcy, liquidation or reorganization, its creditors will generally be entitled to payment of their claims from the assets of that subsidiary before any assets are made available for distributions to us, except to the extent we may also have a claim as a creditor. In that situation, creditors of our subsidiaries and future holders of preferred stock, if any, of our subsidiaries, would have claims on the assets of the subsidiaries with priority over our claims.

**Other than Pathnet, the holding company's subsidiaries, including subsidiaries that we may form in the future, will not following the closing of the Transaction, guarantee or otherwise be responsible for making funds available to us or to Pathnet to make payments on the notes or guarantees.**

Like the notes, the rights under the guarantees to be issued in the Transaction will be structurally subordinated to both secured and unsecured debts of our subsidiaries other than Pathnet. Under the terms of the existing indenture, Pathnet has formed new subsidiaries that are separate legal entities with no obligations under the notes. The supplemental indenture will extend this structure to us. If we incorporate additional subsidiaries, whether new subsidiaries of Pathnet or "sister" companies to Pathnet, these new subsidiaries also will be separate legal entities. They will have no obligation under the supplemental indenture or the guarantees to make payments or to provide dividends or other funds to us or Pathnet to permit us to make payments on the notes or guarantees.

We have concluded that revising the Indenture to provide for these guarantees would interfere with our ability to obtain equipment and other financing necessary in connection with the future development of our network. As a result, the notes are and will continue to be, and the guarantees will be, effectively subordinated to the debts of our subsidiaries other than Pathnet.

**Vendor financing arrangements will likely require PTI to form subsidiaries with substantial assets that will not be obligated to guarantee the notes.**

PTI expects to take advantage of vendor financing in constructing our network. PTI's proposed vendor financing agreement with Lucent specifically requires PTI, if it wishes to take advantage of the Lucent financing, to form a new subsidiary and to contribute to this new subsidiary a substantial portion of Pathnet Telecommunications, Inc.'s assets. This contribution of assets would include the rights of way relating to the segments of our network that we plan to construct with fiber for which Lucent provides

vendor financing, and could include additional cash contributions. This new subsidiary will not guarantee the notes. See "*BUSINESS-Proposed Credit Facility with Lucent.*"

**PTI's indebtedness will contain restrictive covenants, which could expose it to additional defaults and restrict operations.**

By entering into the supplemental indenture, PTI will become subject to a number of restrictive covenants parallel to those contained in the indenture and applicable to Pathnet. These restrictions affect, and, in certain cases significantly limit (and in some cases prohibit), among other things, our ability and the ability of our subsidiaries to:

- incur additional indebtedness;
- create liens;
- make investments;
- pay dividends;
- issue stock; and
- sell assets.

For example, the indenture restricts and the supplemental indenture will restrict PTI's ability to incur indebtedness other than indebtedness to finance the acquisition of equipment, inventory or network assets and other specified indebtedness. In addition, if and when PTI (or its subsidiaries) borrow funds under its proposed credit facility with Lucent or under other credit facilities with other vendors or third parties who may provide financing, PTI may be required to maintain specified financial ratios. We cannot assure you that PTI will be able to maintain those required ratios after each borrowing, and its failure to do so or comply with other covenants could lead to a default on those facilities and a foreclosure against any assets securing the facilities. These restrictive covenants may also adversely affect our ability to finance our future operations or capital needs, or to engage in other business activities that may be in our interest.

**Provisions in Pathnet Telecommunication, Inc.'s certificate of incorporation and bylaws, the stockholders agreement to which it will become a party and the terms of the indenture and supplemental indenture could delay or prevent our change of control, effectively hindering its access to additional equity financing.**

PTI's certificate of incorporation, bylaws and stockholders agreement contain provisions that will make any acquisition of us or investment in PTI more difficult, including restrictions on removal of directors and limitations on the ability of stockholders to call special meetings. The terms of its indenture and supplemental indenture may also restrict and discourage attempts to change control of it. Our ability to attract future equity investment may be hindered because of these provisions, thereby limiting our access to additional capital.

### ***Risks Relating to Our Network Business***

**Difficulties that we may experience in expanding our network could increase our estimated costs and delay scheduled completion of our network.**

We plan to expand our existing network, enter new markets and broaden our product and service offerings — all of which are significant undertakings. These activities will require us to install and operate additional facilities and equipment, and develop, introduce and market new products and services. To deploy these additional services we will need to modify and add to our existing network architecture. We will also need to obtain and install our equipment in the existing local telephone companies' central office collocation space as described in further detail below. We may encounter administrative, technical, operational, regulatory and other problems as a result of our expansion. Many of these factors and problems are beyond our control. If we experience difficulties in addressing and solving these problems, we may not be able to complete our network buildout or expand our products and services as planned or in accordance with our current cost or time estimates.

**We may pursue other relationships with telecommunications providers and other business opportunities that could expose us to additional risks or delay the construction and operation of our network.**

We may enter into relationships with long distance telephone companies, existing local telephone companies, Internet Service Providers, competitive telecommunications companies or other entities to manage existing assets or to deploy alternative telecommunications products and services. We may also seek to serve markets in addition to underserved or second or third tier markets and customers in addition to telecommunications service providers. Pursuing these other opportunities could require additional financing, pose additional risks (such as increased or different competition, additional regulatory burdens and network economics and pricing different from our currently planned network and products and services) and divert our resources and management time. We cannot assure you that we will successfully integrate any new opportunity into our operations or that the opportunity would perform as expected.

**We may not be able to obtain or maintain appropriate rights of way and other access rights that we may need to build and operate our network, which would limit our ability to implement our business plan, depriving us of revenue necessary to implement our business plan.**

In addition to the rights of way, to which we will gain access as a result of the contribution and reorganization transaction, we expect that we will need to obtain and maintain additional rights of way to construct and develop our network. We cannot assure you, however, that we will continue to have access to existing rights of way, leases and licenses after the expiration of our current agreements, or that we will obtain additional rights necessary to extend our network on reasonable terms. In addition, if a franchise, license or lease agreement is terminated and we are forced to remove or abandon a significant portion of our network, our business, results of operations, and financial condition will be materially adversely affected.

**Third party challenges to our use of rights of way obtained from others may delay, hinder or otherwise limit the development and operation of our network, depriving us of the revenues necessary to implement our business plan.**

To construct and maintain our fiber optic and wireless network, we have obtained and will obtain easements, leases, rights of way, franchises and licenses from various private parties, including railroads, pipelines, utilities, actual and potential competitors and local governments. Some of our agreements with right of way providers require us to acknowledge that others who question the right of way providers' ownership claim to the easement or property right may challenge our claim to the rights of way being granted. Third parties have challenged, and we expect in the future that third parties may challenge, our use of rights of way obtained by or from others, including the rights of way we will obtain upon the closing of the contribution and reorganization transaction. If we are unable to resolve any of these challenges, or if the cost of addressing them is higher than we contemplate, these challenges may hinder or delay our business plans.

**If we are unable to obtain additional permits and agreements necessary to operate and expand our network, we may be unable to develop our network or generate sufficient revenues.**

We may require additional pole attachment or conduit use agreements with existing local telephone companies, utilities or other local exchange carriers. We cannot guarantee that we, or our operating companies or partners, will be able to obtain new or maintain existing permits, pole attachment and conduit use agreements needed to develop and operate and expand our network and provide our planned products and services. Our failure to obtain or maintain necessary permits, pole attachments and conduit use agreements could have a material adverse effect on our ability to operate and expand our network.

**If we are unable to obtain and maintain on good terms, the leasehold access or other services and maintenance agreements on which we rely to operate the wireless portion of our network do not own, it may become more expensive, or we may even be unable, to operate those portions of our network.**

We do not own, and we do not expect to own in the future, the underlying sites and facilities upon which our current wireless digital network is deployed. Instead, we (or our affiliated companies) have entered into long term fixed point microwave services agreements with certain of our co-development partners such as Kinder Morgan, formerly KN Energy. Under these agreements, each co-development partner has agreed to grant us a leasehold interest in, or a similar right to use, their facilities and infrastructure as required for us to deploy our network. As a result, we depend and will continue to depend on the facilities and infrastructure of our co-development partners for the operation of our business. In many cases, we also rely on our co-development partners for the maintenance and provisioning of circuits on our network. We have entered into maintenance agreements with some of these co-development partners where they perform maintenance and provisioning services for us in return for a monthly fee. The cancellation or non-renewal of any of these arrangements or agreements could have a material adverse effect on our business.

**Disagreements with our co-development partners or difficulties we may experience in our other strategic relationships could hinder the development of our network and our expansion into target markets.**

As part of our "smart build" strategy and the contribution and reorganization transaction, we have formed and plan to continue in the future to pursue strategic alliances and relationships which would allow us to enter certain markets for telecommunications services sooner than if we had made the attempt independently. As our network is further developed, we will be dependent on some of these