



## **Apex Investment Partners (B): May 1995**

The three key parties concerned with the proposed financing of AccessLine Technologies by Apex Investment Partners—the company’s chief financial officer, two venture capitalists from Apex, and an investment banker from Morgan Stanley—had met in Philadelphia in early May 1995. The meeting’s goal was to finalize the transaction. Apex had proposed to be the lead investor in AccessLine’s \$16 million Series B financing round. The term sheet stipulated that the investors would invest \$8.00 for each unit, which would consist of a preferred share of AccessLine and 0.7 of a warrant to purchase an additional share. Apex, as lead investor, would have a seat on AccessLine’s board.

Apex’s final offer had addressed the bulk of each party’s concerns and sought to achieve a proper alignment of interests. The venture capitalists, however, had failed to appreciate how great a discrepancy existed between their proposed valuation and that desired by the firm’s management. Apex’s Rick Bolander and George Middlemas had been forced to return to Chicago without a deal in hand. AccessLine’s investment banker had called a few days later on a Friday afternoon, to reiterate that Apex’s proposed valuation was unsatisfactory. The issue, he indicated, had to be resolved by Sunday night, when a conference call to finalize the deal was scheduled.

In the just-completed call, the investment banker had indicated that he believed the price per share of preferred stock in the proposed Series B financing would be below the per share price paid in the previous financing round (which had been priced at \$7.00 per share-and-warrant unit). If so, management would almost surely reject the proposed deal. Bolander was unsure, however, whether Apex would be willing to pay more than \$8 for the share-and-warrant unit. Even if his fund was willing to invest, its potential syndication partners might decide not to participate in the deal.

The essential problem, Bolander realized, was how much of the \$8 price of the unit should be assigned to the Series B preferred share and how much to the warrant. Morgan Stanley had done an analysis using the Black-Scholes model. This suggested that the valuation of the preferred stock in the proposed deal would be substantially lower than in AccessLine’s previous financing. Bolander acknowledged that the warrant had some economic value, but felt that he needed to understand both the strengths and limitations of the Morgan Stanley analysis better.

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*Professors Sanjiv Das and Josh Lerner prepared this case as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. Josh Lerner has undertaken advisory work for Apex Investment Partners.*

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## The Proposed Deal

After considerable due diligence, Apex had decided that it wished to invest in AccessLine Technologies. AccessLine, an emerging telecommunications firm based in Bellevue, Washington, was the developer of the “One Person, One Number” concept, which allows an individual to have a single phone number at which he or she can be reached at any time.<sup>1</sup>

In conjunction with its legal advisor, George Thibeault of Testa, Hurwitz and Thibeault, Apex had prepared its own version had prepared a term sheet for the proposed deal (reproduced in **Exhibit 1**). This called a total investment of \$16 million, of which Apex and its affiliated investors would contribute between \$4.5 and \$6.5 million. As is natural in such situations, the terms and conditions outlined in the term sheet had raised a variety of concerns on the part of management. These difficulties, however, had largely been ironed out in the negotiating process.

Much more serious was the problem of valuation. The Morgan Stanley bankers had valued the AccessLine warrants through the Black-Scholes formula. This commonly used model allows one to derive the price of an option to purchase a publicly traded share of stock. The Black-Scholes model assumes that the pay-outs of the option can be duplicated by buying and selling shares of the underlying stock and a Treasury bond. Given several simple variables—the price of the share, the exercise price of the option, the volatility of the firm’s stock price, the time to expiration of the option, and the risk-free interest rate—the option’s price can then be determined.

The bankers had solved for the value of the warrant in an iterative manner. They began with the assumption that the share of stock and two-thirds of the warrant are together worth \$8.<sup>2</sup> Through the use of various assumptions<sup>3</sup> and alternative prices for the stock, they were able to reach a price that set the unit equal to \$8.

Bolander worried whether this calculation was appropriate. An essential assumption of the Black-Scholes formula, however, is that one can buy and sell shares of the security at any time without transaction costs, and that the value of the underlying security evolves in a smooth and continuous manner. AccessLine, however, was not publicly traded. The changes in its valuation could only be observed at infrequent intervals, at the time of new financing rounds. Furthermore, many young technology companies that did trade publicly were characterized by large discontinuities, as the market reacted dramatically to earnings announcements or technological breakthroughs.

Bolander wondered as to whether the Morgan bankers had correctly applied the Black-Scholes formula, and even if they had, whether it was the right tool to apply in this situation. Bolander thought about the complexity of the problem, and about the imminent Sunday night conference call.

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<sup>1</sup> For background information on AccessLine and Apex Investment Partners, see “Apex Investment Partners (A): April 1995,” HBS case No. 296-028.

<sup>2</sup> The Black-Scholes formula provides the value for an option. One can adjust this formula to obtain the value of a warrant, by correcting for the dilution associated with the issue of the shares to fulfill the warrants. In this case, the warrant will be worth about 10% to 15% less than the comparable option.

<sup>3</sup> AccessLine did not trade publicly, so no volatility figure was available. A comparable company, BroadBand Technologies, had a recent volatility of between 40% and 45% (using daily and weekly data).

**Exhibit 1** Summary of Terms for Private Placement of Series B Convertible Preferred Stock and Warrants to Purchase Series B Convertible Preferred Stock: Final "Walk-Away" Offer Presented at Philadelphia Union League Club by Apex Investment Partners

Issuer:	AccessLine Technologies, Inc. ("Company")
Investors:	(1) Apex Investment Fund II L.P., various of its affiliated funds and other entities introduced by Apex (the "Apex Purchasers"); (2) existing investors in the Company; and (3) certain other new investors, (collectively, the "Investors").
Currently Outstanding Securities:	8,086,099 Class A & B Common Stock ("Common"); 2,220,726 Series A Preferred ("Series A"); 333,110 Warrants for Series A; and 2,582,047 Common reserved for employees.
Amount of Investment:	\$16,000,000, of which the Apex Purchasers will provide approximately \$4,500,000-\$6,500,000.
Time of Investment:	The Investors will purchase all of the Series B Shares and Series B Warrants on the date of the Closing under the Purchase Agreement hereinafter referred to.
Types of Securities:	Series B Convertible Preferred Stock ("Series B") and Warrants to purchase Series B ("Series B Warrants").
Number of Series B and Series B Warrants:	2,000,000 shares of Series B and 1,400,000 (70%) Series B Warrants.
Purchase Price per Series B And per Series B Warrants:	\$8.00 per Series B Share ("Original Purchase Price") and Series B Warrant at no cost
Exercise Price per Warrant:	\$8.00 as to warrants exercised on or before June 30, 1996; \$9.00 as to warrants exercised on or after July 1, 1996; and \$10.00 as to warrants exercised on or after January 1, 1997 ("Warrant Exercise Price").
Terms of Series B Warrants:	Earlier of five (5) years following a Qualified Public Offering (as hereafter defined) and ten (10) years from the date of the Closing. The Warrants will provide for "cashless" exercise provision.
Rights, Preferences, Privileges, and Restrictions of Series B:	(1) <i>Dividend Provisions:</i> A cumulative dividend on the Series B will accrue at the rate of eight percent (8%) per annum of the Original Purchase Price or Warrant Exercise Price, as the case may be, commencing on the date such share is issued; provided, however, that if the Company has not consummated a Qualified Public Offering (as hereinafter defined) before January 1, 1997, then effective on and from such date the dividend rate will be increased by an additional two-thirds of a percent ( $\frac{2}{3}\%$ ) per annum at the start of each and every calendar month thereafter ("Accruing Dividends") until a Qualified Public Offering has occurred or until redeemed as described under "Redemption." Accruing Dividends will be payable only: (a) if, as and when determined by the Board of Directors ("Board"); (b) upon the liquidation or winding up of the Company; or (c) upon a redemption as described under "Redemption." No dividend will be paid on the Common, and no shares of Common will be repurchased by the Company except for unvested shares repurchased from former employees at their original purchase price.

(2) *Liquidation Preference*: In the event of the liquidation or winding up of the Company, the holders of Series A and Series B, on a par passu basis, will be entitled to receive in preference to the holders of Common an amount equal to the greater of (a) the Original Purchase Price in the case of the Series A and the Original Purchase Price in the case of the Series B or the Warrant Exercise Price, as the case may be, plus any dividends (including Accruing Dividends) accrued on the Series B but not paid; or (b) the amount they would have received had they converted the Series A and Series B to Common immediately prior to such liquidation or winding up. A consolidation or merger of the Company or sale of all or substantially all of its assets will be deemed to be a liquidation or winding up for purposes of the liquidation preference.

(3) *Redemption*: On \_\_\_\_\_, \_\_\_\_ [to be a date after the date the Series B Warrants expire], the Company will redeem the Series B by paying in cash the Original Purchase Price or Warrant Exercise Price, as the case may be, plus any dividends (including Accruing Dividends) accrued on the Series B but not paid. If the Company fails to redeem the Series B when due, the conversion price of the Series B thereafter will decrease at the rate of 10% per quarter and the holders of the Series B will be entitled to elect a majority of the directors.

(4) *Conversion*: A holder of Series B will have the right to convert the Series B, at the option of the holder, at any time, into shares of Common. The total number of shares of Common into which the Series B may be converted initially will be determined by dividing the Original Purchase Price or Warrant Exercise Price, as the case may be, by the Conversion Price. The initial conversion price will be the Original Purchase Price or the Warrant Exercise Price, as the case may be. The Conversion Price will be subject to adjustment as provided in paragraph (3) above and paragraph (6) below.

(5) *Automatic Conversion*: The Series B will be automatically converted into Common, at the then applicable conversion price, in the event of an underwritten public offering of share of the Common in an offering with gross proceed to the Company of not less than \$10,000,000 and at a public offering price per share that is not less than \$12.00 if such offering occurs on or before June 30, 1996, \$14.00 if such offering occurs on or after July 1, 1996 and on or before December 31, 1996 and \$16.00 if such offering occurs on or after January 1, 1997 (a "Qualified Public Offering"). In such event, the Warrants will automatically convert into warrants to purchase such number of shares of Common as the Series B subject to the Warrants could then be converted into Common. Two-thirds of Series B vote will be required to change Automatic Conversion Price.

(6) *Antidilution Provisions*: If the Company issues additional shares (other than the Reserved Shares described under "Reserved Shares" below) at a purchase price less than the applicable conversion price, the conversion price of the Series B and the Warrant Exercise Price will each be reduced on a weighted average formula basis to diminish the effect of such dilutive issuance. Pay to Play provision shall be in effect for any future financing round.

(7) *Voting Rights*: Except with respect to election of director and certain protective provisions, the holders of Series B will have the right to that number of votes equal to the number of shares of Common issuable upon conversion of the Series B. Election of directors and the protective provisions will be as described under "Board Representation and Meetings" and "Protective Provisions", respectively, below.

(8) *Protective Provisions*: Consent of the holders of at least two-thirds of the Series A and Series B will be required for (1) any sale by the Company of substantially all of its assets; (2) any merger of the Company with another entity; (3) any liquidation or winding up of the Company; (4) any amendment of the Company's charter or by-laws; or (5) certain other actions materially affecting the Series B.

Information Rights:

As long as any of the Series B or Series B Warrants are outstanding, the Company will deliver to each Investor annual, quarterly, and monthly financial statements, annual budgets, and other information reasonably requested by an Investor.

Registration Rights:

(1) *Demand Rights*: If, at any time after the earlier of the Company's initial public offering and the date two (2) years from the purchase of the Series B, Investors holding at least 40% of the Common issued or issuable upon conversion of the Series B and exercise of the Series B warrants request that the Company file a Registration Statement covering at least 20% of the Common issued or issuable upon conversion of the Series B and exercise of the Series B Warrants (or any lesser percentage if the anticipated aggregate offering price would exceed \$5,000,000), the Company will use its best efforts to cause such share to be registered.

The Company will not be obligated to effect more than two registrations (other than on Form S-3) under these demand right provisions.

(2) *Registrations on Form S-3*: Holders of Common issued or issuable upon conversion of the Series B and exercise of the Series B Warrants will have the right to require the Company to file an unlimited number of Registration Statements on Form S-3 (or any equivalent successor form), provided the anticipated aggregate offering price in each registration on Form S-3 will exceed \$250,000.

(3) *Piggy-Back Registration*: The Investors will be entitled to "piggy-back" registration rights on registrations of the Company, subject to the right of the Company and its underwriters to reduce in view of market conditions the number of shares of the Investors proposed to be registered to not less than one-third of the total number of shares in the offering.

(4) *Registration Expenses*: The registration expenses (exclusive of underwriting discounts and commissions) of all of the registrations under paragraphs (1), (2), and (3) above will be borne by the Company.

(5) *Transfer of Registration Rights*: The registration rights may be transferred to a transferee who acquires any of the Series B or Series B Warrants.

(6) *Other Registration Provisions*: Other provisions will be contained in the Purchase Agreement with respect to registration rights as are reasonable, including cross-indemnification, the Company's ability to delay the filing of a demand registration for a period of not more than 90 days in certain circumstances, the agreement by the Investors (if requested by the underwriters in a public offering) not to sell any unregistered Common they hold for a period of 120 days following the effective date of the Registration Statement of such offering, the period of time in which the Registration Statement will be kept effective, underwriting arrangements and the like.

(7) *No Registration of Series B*: The registration rights set forth herein apply

	only to the Common and the Company will never be obligated to register any of the Series B or Series B Warrants.
Use of Proceeds:	The Proceeds from the sale of the Series B or Series B Warrants will be used for working capital.
Board Representation and Meeting:	The charter will provide that the authorized number of directors is seven (7). The Series B (voting as a class) will elect one (1) director (F.W.W. Bolander will be the representative of Apex), the Series A (voting as a class) will elect one (1) director and the Common Series A and Series B (voting together as a single class) will elect five (5) directors. The Board will meet at least quarterly. The by laws will provide, in addition to any provisions required by law, that any two directors or holders of at least 25% of the Series B may call a meeting of the Board. Investors holding at least 400,000 shares of Series B will be entitled to have an observer attend Board meetings.
Key Person Insurance:	\$_____ on each of _____, _____, and _____, with the proceeds payable to the Company.
First Refusal Right for Purchase of New Securities:	As long as any of the Series B or Series B Warrants are outstanding, if the Company proposes to offer any shares for the purpose of financing its business (other than Reserved Shares, shares issued in the acquisition of another company, or shares offered to the public pursuant to an underwritten public offering), the Company will first offer all such shares to the Investors.
Stock Restriction Agreements:	_____, _____, and _____ will each execute a Stock Restriction Agreement with the Investors and the Company pursuant to which the Investors will have a right of first refusal with respect to any shares proposed to be sold by such persons. The Stock Restriction Agreement will also contain a right of co-sale providing that before any such person may sell any of his shares, he will first give the Investors an opportunity to participate in such sale on the basis proportionate to the amount of securities held by the seller and those held by the Investors. In addition, the Stock Restriction Agreement will restrict such person from selling more than ____% of his shares for ____ years from the purchase of the Series B. The Stock Restriction Agreement will also give the Company the right to repurchase such person's unvested shares at a price equal to his original purchase price, in the event his employment with the Company terminates. Shares will vest at the rate of ____% per annum. The Stock Restriction Agreement will terminate after ten years or, if earlier, a Qualified Public Offering.
Reserved Shares:	<p>The Company currently has 2,582,047 shares of Common reserved for issuance to directors, officers, employees (the "Reserved Shares").</p> <p>The Reserved Shares will be issued from time to time to directors, officers, employees, and consultants of the Company under such agreements, contracts, or plans as are recommended by management and approved by the Board, provided that without the unanimous consent of the directors elected solely by the Series B, the vesting of any such shares (of options therefore) issued to any such person shall not be at a rate in excess of 20% per annum from the date of issuance. Unless subsequently agreed to the contrary by the investors, any issuance of shares in excess of the Reserved Shares will be a dilutive event requiring adjustment of the conversion price as provided above and will be subject to the Investors' first refusal right as described above. Holders of Reserved Shares who are officers or employees of the Company will be required to execute Stock Restriction</p>

	Agreements generally as described above.
Noncompetition Agreement:	To the extent permitted by applicable law, employees, directors, and _____ will each enter into a noncompetition agreement with the Company in a form reasonably acceptable to the Investors.
Nondisclosure and Developments Agreement:	Each officer and key employee of the Company will enter into a nondisclosure and developments agreement in a form reasonably acceptable to the Investors.
The Purchase Agreement:	The purchase of the Series B and the Series B Warrants will be made pursuant to a Series B Stock and Warrant Purchase Agreement drafted by counsel to the Investors. Such agreement shall contain, among other things, appropriate representations and warranties of the Company, covenants of the Company reflecting the provisions set forth herein and other typical covenants, and appropriate conditions of closing, including, among other things, qualification of the securities under applicable Blue Sky laws, the filing of a certificate of amendments to the Company's charter to authorize the Series B, and an opinion of counsel. Until the Purchase Agreement is signed by both the Company and the Investors, there will not exist any binding obligation on the part of either party to consummate the transaction. This Summary of Terms does not constitute a contractual commitment of the Company or the Investors or an obligation of either party to negotiate with the other.
Expenses:	The Company and the Investors will each bear their own legal and other expenses with respect to the transaction (except that, assuming a successful completion of the transaction, the Company will pay the legal fees and expenses of Testa, Hurwitz & Thibault, counsel to the Investors).
Finders:	The Company and the Investors will each indemnify the other for any finder's fees for which either is responsible.
Due Diligence:	All terms subject upon successful completion of due diligence within twenty (20) days after successful completion of this term sheet.

Source: Corporate documents.