### SECURITIES AND EXCHANGE COMMISSION

Washington, D. C. 20549

### FORM 8-K

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): September 15, 2003

## PRIMUS TELECOMMUNICATIONS GROUP, INCORPORATED

(Exact name of registrant as specified in its charter)

#### Delaware

(State or other jurisdiction of incorporation)

**0-29092** (Commission File No.)

54-1708481

(IRS Employer Identification No.)

1700 Old Meadow Road, Suite 300, McLean, VA 22102

(Address of principal executive offices and zip code)

Registrant's telephone number, including area code: (703) 902-2800

#### Item 5. Other Events.

#### A. Private Placement of Notes.

On September 15, 2003, Primus Telecommunications Group, Incorporated (the "Company") issued a press release (the "Press Release") announcing the closing of its previously announced private placement of an aggregate of \$132.0 million of convertible senior notes due 2010 (the "Notes").

The full text of the Press Release is provided below:



Contact:
John DePodesta
Executive Vice President
PRIMUS Telecommunications Group, Incorporated
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# PRIMUS TELECOMMUNICATIONS CLOSES \$132 MILLION OF 3.75% CONVERTIBLE SENIOR NOTES

McLean, VA.—September 15, 2003—PRIMUS Telecommunications Group, Incorporated (Nasdaq:PRTL), a global telecommunications services provider offering an integrated portfolio of voice, Internet, data and hosting services, announced today that it has closed the sale of \$132 million aggregate principal amount of its 3.75% convertible senior notes due September 15, 2010 (the "Notes"), to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended. The \$132 million aggregate principal amount of Notes includes the exercise by the initial purchasers of their over allotment option to purchase an additional \$22 million amount of Notes.

The Notes will bear interest at the rate of 3.75% per year and will be payable in cash semi-annually in arrears on March 15 and September 15 of each year, with the first payment due on March 15, 2004. Holders of outstanding Notes may convert their Notes into PRIMUS's common stock at any time prior to maturity at an initial conversion price of \$9.3234 per share, which is equivalent to an initial conversion rate of 107.257 shares per \$1,000 principal amount of Notes, subject to adjustment in certain circumstances. Thus, the Notes are convertible in the aggregate into 14,157,925 shares of PRIMUS common stock. The initial conversion price represents a 23% premium to the last reported price for PRIMUS common stock on the NASDAQ National Market on September 9, 2003.

The Company intends to use a portion of the net proceeds of approximately \$127 million from this sale of Notes to repay fully its remaining 11<sup>3</sup>/4% senior notes due August 2004 ("2004 Notes"), and to use a substantial portion of the remaining net proceeds to reduce other long-term debt. As a result of redemption of \$10 million principal amount of the 2004 Notes, effective September 15, 2003, \$33.6 million principal amount of the 2004 Notes remain outstanding.

This press release does not constitute an offer to sell or the solicitation of an offer to buy any of these securities. The securities offered and sold have not been registered under the Securities Act, or any state securities laws, and are only being offered and sold to qualified institutional buyers in reliance on the exemption from registration provided by Rule 144A. Unless so registered, the Notes and any common stock issued upon conversion of the Notes may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act and applicable state securities laws.

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PRIMUS Telecommunications Group, Incorporated (NASDAQ: PRTL) is a global facilities-based telecommunications services provider offering international and domestic voice, Internet, data and hosting services to business and residential retail customers and other carriers located primarily in the United States, Canada, Australia, the United Kingdom and western Europe. PRIMUS provides services over its global network of owned and leased transmission facilities, including approximately 250 points-of-presence (POPs) throughout the world, ownership interests in over 23 undersea fiber optic cable systems, 19 carrier-grade international gateway and domestic switches, and a variety of operating relationships that allow it to deliver traffic worldwide. PRIMUS also has deployed a global state-of-the-art broadband fiber optic ATM+IP network and data centers to offer customers Internet, data, hosting and e-commerce services. Founded in 1994, Primus is based in McLean, VA.

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Statements in this press release concerning the Notes offering, and intended uses of proceeds thereof, constitute "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Such statements are based on current expectations, and are not strictly historical statements. Factors and risks that could cause actual results or circumstances to differ materially from those set forth or contemplated in forward-looking statements include, without limitation: changes in business conditions; fluctuations in the exchange rates of currencies, particularly any strengthening of the United States dollar relative to foreign currencies of the countries where we conduct our foreign operations; adverse interest rate developments; fluctuations in prevailing trade credit terms or revenues due to the adverse impact of, among other things, further telecommunications carrier bankruptcies or adverse bankruptcy related developments affecting our large carrier customers; the possible inability to raise additional capital when needed, or at all: the inability to reduce, repurchase, exchange or restructure debt significantly, or in amounts sufficient to conduct regular ongoing operations; changes in the telecommunications or Internet industry; adverse tax rulings from applicable taxing authorities; digital subscriber line, Internet and telecommunications competition; changes in financial, capital market and economic conditions; changes in service offerings or business strategies; difficulty in migrating or retaining customers, including former Cable & Wireless customers associated with our recent acquisition of this customer base, or integrating other assets; difficulty in providing voice-over-Internet protocol services; changes in the regulatory schemes or requirements and regulatory enforcement in the markets in which we operate; restrictions on our ability to follow certain strategies or complete certain transactions as a result of our capital structure or debt covenants; risks associated with our limited DSL, Internet and Web hosting experience and expertise; entry into developing markets; the possible inability to hire and/or retain qualified sales, technical and other personnel, and to manage growth; risks associated with international operations; dependence on effective information systems; dependence on third parties to enable us to expand and manage our global network and operations; dependence on the implementation and performance of our global asynchronous transfer mode + Internet protocol communications network; adverse outcomes of outstanding litigation matters; and the outbreak or escalation of hostilities or terrorist acts and adverse geopolitical developments. As such, actual results or circumstances may vary materially from such forwardlooking statements or expectations. Readers are also cautioned not to place undue reliance on these forward-looking statements which speak only as of the date these statements were made. We are not necessarily obligated to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. You are advised, however, to consult the discussion of risks and uncertainties under "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources-Short and Long-Term Liquidity Considerations and Risks"; and "—Special Note Regarding Forward-Looking Statements" contained in our quarterly report on Form 10-Q for the period ended June 30, 2003, as filed with the Securities and Exchange Commission.

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#### B. Additional Information Concerning this Report.

The information contained in this Current Report on Form 8-K is neither an offer to sell nor a solicitation of an offer to buy any of the Notes or the shares of the Company's common stock issuable upon conversion of the Notes (the "Conversion Shares"). The Notes and the Conversion Shares to be offered will not be registered under the Securities Act of 1933, as amended (the "Securities Act"), or applicable state securities laws and may not be offered or sold in the United States absent registration or an applicable exemption from the registration requirements of the Securities Act.

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#### **SIGNATURE**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

## PRIMUS TELECOMMUNICATIONS GROUP, INCORPORATED

Dated: September 15, 2003 By: /s/ NEIL HAZARD

Neil Hazard Name:

Chief Operating Officer and Chief Financial Officer Title:

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QuickLinks

Item 5. Other Events.

**SIGNATURE**