

UNITED STATES SECURITIES AND EXCHANGE COMMISSION**Washington, D.C. 20549****FORM S-8****REGISTRATION STATEMENT*****Under The Securities Act of 1933*****CENTILLIUM COMMUNICATIONS, INC.**

(Exact name of Registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)**215 Fourier Avenue**
Fremont, California 94539
(Address, including zip code, of Registrant's principal executive offices)**94-3263530**
(I.R.S. Employer
Identification Number)**1997 Stock Plan**
2000 Employee Stock Purchase Plan
(Full titles of the plans)**Faraj Aalaei**
Chief Executive Officer
215 Fourier Avenue
Fremont, California 94539
(510) 771-3700
(Name, address and telephone number, including area code, of agent for service)**Copies to:**
Arthur F. Schneiderman
Wilson Sonsini Goodrich & Rosati
Professional Corporation
650 Page Mill Road
Palo Alto, CA 94304
(650) 493-9300**CALCULATION OF REGISTRATION FEE**

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common stock, \$0.001 par value, issuable under the 1997 Stock Plan.....	2,412,356	\$ 3.43 (2)	\$ 8,274,381.08	\$885.36
Common stock, \$0.001 par value, issuable under the 2000 Employee Stock Purchase Plan.....	400,000	\$ 2.9155 (3)	\$1,166,200.00	\$124.79
Total.....	2,812,356	N/A	\$ 9,440,581.08	\$1,010.15

- (1) This Registration Statement shall also cover any additional shares of Common Stock which become issuable by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of the outstanding shares of Common Stock.
- (2) With respect to the 2,412,356 shares of Common Stock to be registered under the 1997 Stock Plan, the estimated Proposed Maximum Offering Price Per Share was determined pursuant to Rule 457(c) to be the average of the high and low price reported on the Nasdaq Stock Market on March 10, 2006, which average was \$3.43 per share.
- (3) With respect to the 400,000 shares of Common Stock to be registered under the 2000 Employee Stock Purchase Plan, the estimated Proposed Maximum Offering Price Per Share was determined pursuant to Rule 457(c) to be equal to 85% (see explanation in following sentence) of the

average of the high and low price reported on the Nasdaq Stock Market on March 10, 2006, which amount is equal to \$2.9155 per share. Pursuant to the Employee Stock Purchase Plan, the Purchase Price of a share of Common Stock is equal to 85% of the Fair Market Value of a share of Common Stock on the Enrollment Date or the Exercise Date, whichever is lower.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Explanatory Note:

This Registration Statement is filed with respect to 2,412,356 and 400,000 shares of common stock of Centillum Communications, Inc. (the "Registrant") that may be issued under the Registrant's 1997 Stock Plan and 2000 Employee Stock Purchase Plan, respectively, as a result of certain automatic annual increases in the number of authorized shares for issuance under such plans.

Item 3. Incorporation of Documents by Reference.

There are hereby incorporated by reference into this Registration Statement the following documents and information heretofore filed with the Securities and Exchange Commission (the "Commission") by Centillum Communications, Inc.:

1. The Registrant's Annual Report on Form 10-K for the year ended December 31, 2005, filed with the Commission on March 13, 2006;
2. The Company's Current Reports on Form 8-K filed on January 19, 2006 and February 16, 2006. The Registrant specifically excludes from incorporation such information that has been furnished and not filed pursuant to Item 2.02 of the Registrant's Current Report on Form 8-K filed with the Commission on February 2, 2006;; and
3. The description of Registrant's Common Stock contained in the Registrant's Registration Statement on Form 8-A, declared effective by the Commission on May 23, 2000.

In addition, all documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934 after the date of this Registration Statement on Form S-8 and prior to the filing of a post-effective amendment that indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of filing such documents.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law permits a corporation to include in its charter documents, and in agreements between the corporation and its directors and officers, provisions expanding the scope of indemnification beyond that specifically provided by the current law.

Article IX of the Registrant's Restated Certificate of Incorporation provides for the indemnification of directors to the fullest extent permissible under Delaware law.

Article VI of the Registrant's Bylaws provides for the indemnification of officers, directors and third parties acting on behalf of the Registrant if such person acted in good faith and in a manner reasonably believed to be in and not opposed to the best interest of the Registrant, and, in any criminal action or proceeding, the indemnified party had no reason to believe his or her conduct was unlawful.

The Registrant has entered into indemnification agreements with its directors and executive officers, in addition to indemnification provided for in the Registrant's Bylaws, and intends to enter into indemnification agreements with any new directors and executive officers in the future.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

<u>Exhibit Number</u>	<u>Exhibit</u>
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1	Centillium Communications, Inc. Amended and Restated 1997 Stock Plan (previously filed as an exhibit to Registrant's Form S-8 filed with the Commission on March 6, 2001 and incorporated herein by reference)
10.2	Centillium Communications, Inc. 2000 Employee Stock Purchase Plan (previously filed as an exhibit to Registrant's Form S-8 filed with the Commission on March 6, 2001 and incorporated herein by reference)
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
23.2	Consent of WSGR (included in Exhibit 5.1)
24.1	Power of Attorney (see signature page)

Item 9. Undertakings

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement to include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, as amended (the "Securities Act"), each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(5)(ii) That, for the purpose of determining liability under the Securities Act to any purchaser: each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(6) That, for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of the securities: the undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this Registration Statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and
- (iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(h) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the

matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on the 16th day of March, 2006.

Centillium Communications, Inc.

By: /s/ Faraj Aalaei
Faraj Aalaei
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each such person whose signature appears below constitutes and appoints, jointly and severally, Faraj Aalaei and J. Scott Kamsler his attorneys-in-fact, each with the power of substitution, for him in any and all capacities, to sign any amendments to this Registration Statement on Form S-8 (including post-effective amendments), and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Commission, hereby ratifying and confirming all that each of said attorneys-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Kamran Elahian</u> Kamran Elahian	Chairman of the Board	March 16, 2006
<u>/s/ Faraj Aalaei</u> Faraj Aalaei	Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2006
<u>/s/ J. Scott Kamsler</u> J Scott Kamsler	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	March 16, 2006
<u>/s/ Jere Drummond</u> Jere Drummond	Director	March 16, 2006
<u>/s/ Sam Srinivasan</u> Sam Srinivasan	Director	March 16, 2006
<u>/s/ Robert C. Hawk</u> Robert C. Hawk	Director	March 16, 2006
<u>/s/ Lip-Bu Tan</u> Lip-Bu Tan	Director	March 16, 2006

INDEX TO EXHIBITS

<u>Exhibit Number</u>	<u>Exhibit</u>
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation
10.1	Centillum Communications, Inc. Amended and Restated 1997 Stock Plan (previously filed as an exhibit to Registrant's Form S-8 filed with the Commission on March 6, 2001 and incorporated herein by reference)
10.2	Centillum Communications, Inc. 2000 Employee Stock Purchase Plan (previously filed as an exhibit to Registrant's Form S-8 filed with the Commission on March 6, 2001 and incorporated herein by reference)
23.1	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm
23.2	Consent of WSGR (included in Exhibit 5.1)
24.1	Power of Attorney (see signature page)