

Wireless Telecom Group, Inc.

25 Eastmans Road

Parsippany, New Jersey 07054

(Name and Address of Agent for Service)

(973) 386-9696

(Telephone number, including area code, of agent for service)

Copies of all Communications to:

Gerard S. DiFiore, Esq.

Edward P. Bromley III, Esq.

Reed Smith LLP

599 Lexington Avenue, 28th Floor

New York, New York 10022

Tel: (212) 521-5400; Fax: (212) 521-5450

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer Accelerated filer
 Non-accelerated filer Smaller reporting company
 (Do not check if a smaller reporting company)

CALCULATION OF REGISTRATION FEE

Title of Securities to be registered	Amount to be registered(1)	Proposed maximum offering price per share(2)	Proposed maximum aggregate offering price(2)	Amount of registration fee
Common Stock, par value \$0.01 per share	1,658,045	\$2.62995	\$4,360,575.40	\$561.64

(1) This registration statement covers shares of common stock, \$0.01 par value of Wireless Telecom Group, Inc. which may be offered from time to time pursuant to the Company’s Amended and Restated 2012 Incentive Compensation Plan. In addition, this registration statement covers such indeterminate number of shares of common stock, par value \$0.01 (“Common Stock”), as may be issued to prevent dilution resulting from stock splits, stock dividends or similar transactions in accordance with Rule 416 under the Securities Act of 1933, as amended (the “Securities Act”).

(2) Estimated solely for the purpose of calculating the amount of the registration fee pursuant to Rule 457(h) promulgated under the Securities Act. The offering price per share and aggregate offering price are based upon the average of the high and low prices for the Common Stock as reported on the NYSE MKT on July 18, 2014, in accordance with Rule 457(c) of the Securities Act.

Statement

This registration statement on Form S-8 is being filed to register 1,658,045 shares of Common Stock of Wireless Telecom Group, Inc. (the "Company") available for issuance under the Amended and Restated 2012 Incentive Compensation Plan, as approved by the Company's stockholders at the Company's 2014 annual stockholders' meeting on June 11, 2014.

Part I

INFORMATION REQUIRED IN SECTION 10(a) PROSPECTUS

The documents containing the information specified in Part I will be sent or given to employees, officers, directors or others as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the "SEC") and the instructions to Form S-8, such documents are not being filed with the Commission either as part of this registration statement or as prospectuses or prospectus supplements pursuant to Rule 424 under the Securities Act. These documents and the documents incorporated by reference in this registration statement pursuant to Item 3 of Part II of this registration statement, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

Part II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents previously filed with the SEC pursuant to the Securities and Exchange Act of 1934, as amended, are hereby incorporated by reference into this registration statement (other than, in each case, documents or information deemed to be furnished and not filed in accordance with the SEC rules):

- a. Our Annual Report on Form 10-K for the year ended December 31, 2013, filed with the SEC on March 31, 2014;
- b. Our Quarterly Report on Form 10-Q for the quarter ended March 31, 2014 filed with the SEC on May 15, 2014;
- c. Our Current Reports on Form 8-K filed with the SEC on March 6, 2014, March 31, 2014*, April 11, 2014*, June 13, 2014 and June 16, 2014 (*excluding Items 2.02, 7.01, 9.01 and Exhibit 99.1, as applicable);
- d. Our Schedule 14A filed with the SEC on April 30, 2014;
- e. Our Amendment No. 1 to Schedule 14A filed with the SEC on May 16, 2014; and
- f. The description of the common stock contained in our Registration Statement on Form 8-A, filed with the SEC on April 23, 1993.

In addition, all documents that we subsequently file pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act of 1934, as amended, prior to the filing of a post-effective amendment which indicates that all securities offered have been sold or which deregisters all securities then remaining unsold, shall be deemed to be incorporated by reference into this registration statement and to be a part hereof from the date of filing of such documents.

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference or deemed to be a part of this Registration Statement shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained in this Registration Statement or in any other subsequently filed document that also is or is deemed to be incorporated by reference or deemed to be a part of this Registration Statement modifies or supersedes such statement. Any statement contained in a document that is deemed to be incorporated by reference or deemed to be a part of this Registration Statement after the most recent effective

date may modify or replace existing statements contained in this Registration Statement. In either case, any statement so modified or superseded shall not be deemed to constitute a part of this Registration Statement, except as so modified or superseded.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

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Item 6. Indemnification of Directors and Officers.

New Jersey General Corporation Law.

The Company is a corporation organized under the laws of the State of New Jersey. The New Jersey Business Corporation Act, as amended (the "NJBCA"), provides that a New Jersey corporation has the power to indemnify a director or officer against his or her expenses and liabilities in connection with any proceeding involving the director or officer by reason of his or her being or having been such a director or officer, other than a proceeding by or in the right of the corporation, if such a director or officer acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and with respect to any criminal proceeding, such director or officer had no reasonable cause to believe his or her conduct was unlawful.

In addition, a New Jersey corporation has the power to indemnify a director or officer against his or her expenses in connection with any proceeding brought by or in the right of the corporation to procure a judgment in its favor, which involves the director or officer by reason of his or her being or having been such a director or officer, if such director or officer acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation; however, no indemnification is permitted in respect of any claim, issue or matter as to which such director or officer shall have been adjudged to be liable to the corporation, unless and only to the extent that there is a judicial determination upon application that despite the adjudication of liability, but in view of all circumstances of the case, such director or officer is fairly and reasonably entitled to such indemnification. Expenses incurred by a director or officer in connection with a proceeding may be, under certain circumstances, paid by the corporation in advance of the final disposition of the proceeding as authorized by the board of directors.

The NJBCA requires a New Jersey corporation to indemnify a director or an officer against all expenses to the extent that such director or officer has been successful on the merits or otherwise in any proceeding involving such director or officer by reason of his or her having been a director or officer or in defense of any claim, issue or matter therein.

The indemnification permitted or required and advancement of expenses permitted by the NJBCA does not exclude any other rights, including the right to be indemnified against liabilities and expenses incurred in proceedings by or in the right of the corporation, to which a director or officer may be entitled under a certificate of incorporation, by-law, agreement, vote of shareholders, or otherwise; provided that no indemnification shall be made to or on behalf of a director or officer if a judgment or other final adjudication adverse to the director or officer establishes that his or her acts or omissions (a) were in breach of his or her duty of loyalty to the corporation or its shareholders, (b) were not in good faith or involved a knowing violation of law or (c) resulted in receipt by the director or officer of an improper personal benefit.

All of the foregoing powers of indemnification granted to a New Jersey corporation may be exercised by such corporation notwithstanding the absence of any provision in its certificate of incorporation or by-laws authorizing the exercise of such powers. However, a New Jersey corporation may, with certain limitations, provide in its certificate of incorporation that a director or officer shall not be personally liable, or shall be liable only to the extent therein provided, to the corporation or its shareholders for damages for breach of a duty owed to the corporation or its shareholders, except that such provision will not relieve a director or officer from liability for any breach of duty based upon an act or omission (a) in breach of such person's duty of loyalty to the corporation or its shareholders, (b) not in good faith or involving a knowing violation of the law, or (c) resulting in receipt by such person of an improper personal benefit. The Company's Certificate of Incorporation includes limitations on the liability of officers and directors to the full extent permitted by New Jersey law.

Under the NJBCA, a New Jersey corporation has the power to purchase and maintain insurance on behalf of any director or officer against any expenses incurred in any proceeding and any liabilities asserted against him or her by reason of his or her being or having been a director or officer, whether or not the corporation has the power to

indemnify him or her against such expenses and liabilities under the NJBCA. The Company has purchased such insurance covering its directors and officers.

Certificate of Incorporation and Bylaws.

The registrant's certificate of incorporation contains a provision stating that the personal liability of the officers and directors of the Corporation is limited to the fullest extent permitted by the applicable provisions of the NJBCA, as the same may be amended and supplemented.

The registration's bylaws contain provisions which provide, among other things, that the registration shall indemnify, to the full extent from time to time permitted by law, any present, former or future director or officer ("Corporate Agent") made, or threatened to be made, a party to, or a witness or other participant in, any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative, arbitrative, legislative, investigative, or of any other kind, including by or in the right of the Company ("Proceeding"), by reason of the fact that such person is or was a Corporate Agent of the Company or any subsidiary of the Company

or, while serving as a Corporate Agent of the Company or any subsidiary of the Company, serves or served another enterprise (including, without limitation, any sole proprietorship, association, corporation, partnership, joint venture or trust), whether or not for profit, at the request of the Company as a director, officer, employee or agent thereof (including service with respect to any employee benefit plan of the Company or any subsidiary of the Company), against expenses (including attorneys' fees), judgments, fines, penalties, excise taxes and amounts paid in settlement, actually and reasonably incurred by such person in connection with such Proceeding or any appeal therein. Additionally, the bylaws state that no indemnification is required with respect to any settlement or other non-adjudicated disposition of any threatened or pending Proceeding unless the Company has given its prior consent to such settlement or other disposition. The Company will pay expenses incurred in connection with a Proceeding for any Corporate Agent of the Company in advance of the final disposition of such Proceeding promptly upon receipt of an undertaking by or on behalf of such person to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the Company. Furthermore, the Company's bylaws provide that the provisions relating to indemnification and advancement of expenses shall not be deemed exclusive of any other rights to which any person indemnified may be entitled.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit No. Description of Exhibit

4.1	Restated Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to our Annual Report on Form 10-K/A filed with the SEC on April 22, 2005).
4.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 to our Current Report filed on Form 8-K, dated October 12, 2012, and filed on October 15, 2012).
5.1*	Opinion of Reed Smith LLP.
23.1*	Consent of PKF O'Connor Davies, a division of O'Connor Davies, LLP, Independent Registered Public Accounting Firm.
23.2*	Consent of Reed Smith LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature pages hereto).
99.1	Amended and Restated 2012 Incentive Compensation Plan of the registrant (incorporated by reference to Appendix A of the Company's Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on April 30, 2014).

*Filed herewith.

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:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) 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; *provided, however*, that paragraphs (a)(1)(i) and (a)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement.

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(2) That, for the purpose of determining any liability under the Securities Act of 1933, 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.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or 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 Securities Exchange Act of 1934) 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.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 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 Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Parsippany, New Jersey, on July 23, 2014.

WIRELESS
TELECOM GROUP,
INC.
a New Jersey
corporation

/s/ Paul Genova
Paul Genova
Chief Executive Officer

POWER OF ATTORNEY

Each individual whose signature appears below constitutes and appoints Paul Genova and Robert Censullo his true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this registration statement, or any registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act, and to file the same, with all exhibits thereto and other documents in connection therewith, with the SEC, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or any of them, or their substitutes or substitute may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Form S-8 registration statement has been signed by the following persons in the capacities and on the dates indicated:

Principal	Principal
Financial	Financial
Executive	and
Officer:	Accounting
	Officer:

<u>/s/ Paul</u>	<u>/s/ Robert</u>
<u>Genova</u>	<u>Censullo</u>
Paul	Robert
Genova	Censullo
Chief	
Executive	Chief
Officer	Financial
and	Officer
Director	

Dated: July 23, 2014
Dated: July 23, 2014

Directors:

/s/ Henry L. Bachman /s/ Alan L. Bazaar

Henry L. Bachman Alan L. Bazaar

Dated: July 23, 2014
Dated: July 23, 2014

/s/ Don Carlos Bell III /s/ Joseph Garrity

Don Carlos Bell III Joseph Garrity

Dated: July 23, 2014
Dated: July 23, 2014

INDEX TO EXHIBITS

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4.2	Amended and Restated Bylaws of the Company (incorporated by reference to Exhibit 3.1 to our Current Report filed on Form 8-K with the SEC on February 4, 2008).
5.1	Opinion of Reed Smith LLP.
23.1	Consent of PKF O'Connor Davies, a division of O'Connor Davies, LLP, Independent Registered Public Accounting Firm.
23.2	Consent of Reed Smith LLP (included in Exhibit 5.1).
24.1	Power of Attorney (included on signature pages hereto).
99.1	Amended and Restated 2012 Incentive Compensation Plan of the registrant (incorporated by reference to Appendix A of the Company's Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on April 30, 2014).