

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

PDF SOLUTIONS, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware
(State or Other Jurisdiction of
Incorporation or Organization)

25-1701361
(I.R.S. Employer
Identification Number)

2858 De La Cruz Boulevard
Santa Clara, California 95050
(Address of Principal Executive Offices) (Zip Code)

FIFTH AMENDED AND RESTATED 2011 STOCK INCENTIVE PLAN
(Full Title of the Plan)

Peter Cohn, Esq.
Secretary
Orrick, Herrington & Sutcliffe LLP
1040 Marsh Road
Menlo Park, California 94025
(650) 614-7400
(Name and Address of Agent for Service)

(408) 280-7900
(Telephone Number, Including Area Code, of Agent for Service)

Copy to:

JOHN K. KIBARIAN
President and Chief Executive Officer
PDF Solutions, Inc.
2858 De La Cruz Boulevard
Santa Clara, California 95050

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer", "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title 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, \$0.00015 par value	3,832,635(2)	\$ 12.09(3)	\$ 46,336,557.15	\$ 5,615.99

- (1) This registration statement on Form S-8 (the "Registration Statement") shall also cover any additional shares of Common Stock (the "Common Stock") of PDF Solutions, Inc. (the "Registrant"), which become issuable under the Fifth Amended and Restated 2011 Stock Incentive Plan (the "2011 Plan") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the Registrant's receipt of consideration, which results in an increase in the number of the Registrant's outstanding shares of Common Stock.
- (2) Includes (i) 3,750,000 shares reserved for issuance under the 2011 Plan following approval by the Registrant's stockholders of the Third Amended and Restated 2011 Stock Incentive Plan, the Fourth Amended and Restated 2011 Stock Incentive Plan and the Fifth Amended and Restated 2011 Stock Incentive Plan and (ii) 82,635 shares that were (a) previously issued under the Registrant's 2001 Stock Option Plan (the "2001 Plan") that were forfeited or withheld by the Registrant or (b) subject to awards previously issued under the 2001 Plan that expired or terminated without having been exercised or settled in full, which were in each case reserved for issuance under the 2011 Plan pursuant to the terms of the 2011 Plan.
- (3) The Proposed Maximum Offering Price Per Share is calculated in accordance with Rules 457(c) and 457(h) under the Securities Act of 1933, as amended (the "Securities Act"), solely for the purpose of calculating the registration fee on the basis of \$12.09 per share, the average of the high and low price of the Common Stock as reported on the NASDAQ Global Market on August 5, 2019.
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PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the "SEC"):

- (a) The Registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed with the SEC on March 8, 2019 (File No. 000-31311);
- (b) All other reports filed pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), since the end of the fiscal year covered by the Registrant's documents referred to in (a) above; and
- (c) The Registrant's Registration Statement on Form 8-A12G, filed with the SEC on August 10, 2000 (File No. 000-31311) together with Amendment No. 1 to the Registrant's Registration Statement on Form 8-A12G, filed with the SEC on July 24, 2001 (File No. 000-31311), in which are described the terms, rights and provisions applicable to the Registrant's Common Stock, and including any other amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14, and 15(d) of the Exchange Act, prior to the filing of a post-effective amendment which indicates that all securities offered hereby 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 a part hereof from the date of filing of such documents, except as to specific sections of such statements as set forth therein. Unless expressly incorporated into this Registration Statement, a report furnished on Form 8-K prior or subsequent to the date hereof shall not be incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated herein by reference shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated herein by reference modifies or supersedes such statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

The validity of the Common Stock being registered hereby will be passed upon for the Registrant by Orrick, Herrington & Sutcliffe LLP, Menlo Park, California. As of the date of this Registration Statement, Peter Cohn, a partner of Orrick, Herrington & Sutcliffe LLP, is the Registrant's Secretary.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law provides that a corporation may indemnify directors and officers, as well as other employees and individuals, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by any such person in connection with any threatened, pending or completed actions, suits or proceedings in which such person is made a party by reason of such person being or having been a director, officer, employee or agent of the Registrant. The Delaware General Corporation Law provides that Section 145 is not exclusive of other rights to which those seeking indemnification may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise. Article XIII of the Registrant's Third Amended and Restated Certificate of Incorporation and Article VI of the Registrant's Bylaws provide for indemnification by the Registrant of its directors and officers to the fullest extent permitted by the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) for unlawful payments of dividends or unlawful stock repurchases, redemptions or other distributions, or (iv) for any transaction from which the director derived an improper personal benefit. The Registrant's Amended and Restated Certificate of Incorporation provides for such limitation of liability.

The Registrant has obtained directors' and officers' insurance providing indemnification for certain of the Registrant's directors, officers and employees for certain liabilities.

The Registrant has entered into indemnification agreements with each director and executive officer which provide indemnification that is, in some respects, broader than the specific indemnification provisions contained in the Delaware General Corporation Law and provides indemnification under certain circumstances for acts and omissions which may not be covered by any directors' and officers' liability insurance.

Item 7. Exemption From Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description of Exhibit
5.1	Opinion and Consent of Orrick, Herrington & Sutcliffe LLP
23.1	Consent of BPM LLP, as Independent Registered Public Accounting Firm
23.2	Consent of PricewaterhouseCoopers LLP, as Independent Registered Public Accounting Firm
23.3	Consent of Orrick, Herrington & Sutcliffe LLP (included in Exhibit 5.1 to this Registration Statement)
24.1	Power of Attorney
99.1	Fifth Amended and Restated 2011 Stock Incentive Plan (incorporated herein by reference to Appendix A to Registrant's Definitive Proxy Statement on Schedule 14A filed on April 30, 2019)

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;
- (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; and
- (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 (1)(i) and (1)(ii) do not apply if the information required to be included in the post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the Registrant pursuant to Section 13 or 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement.

- (2) That, for the purpose of determining any liability under 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.
- (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 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.
- (c) 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 SEC 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.
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SIGNATURES

Pursuant to the requirements of the Securities Act, 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 the City of Santa Clara, State of California, on the 6th day of August, 2019.

PDF SOLUTIONS, INC.
(Registrant)

By: /s/ Christine Russell

Christine Russell
Executive Vice President, Finance and Chief
Financial Officer

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

Signature	Title	Date
<u>/s/ John Kibarian</u> John K. Kibarian	Director, President and Chief Executive Officer (principal executive officer)	<u>August 6, 2019</u>
<u>/s/ Christine Russell</u> Christine Russell	Executive Vice President, Finance and Chief Financial Officer (principal financial and accounting officer)	<u>August 6, 2019</u>
<u>*</u> Joseph R. Bronson	Lead Independent Director	<u>August 6, 2019</u>
<u>*</u> Nancy Erba	Director	<u>August 6, 2019</u>
<u>*</u> Michael B. Gustafson	Director	<u>August 6, 2019</u>
<u>*</u> Marco Iansiti	Director	<u>August 6, 2019</u>
<u>*</u> Kimon W. Michaels	Director	<u>August 6, 2019</u>
<u>*</u> Gerald Z. Yin	Director	<u>August 6, 2019</u>
<u>*</u> Shuo Zhang	Director	<u>August 6, 2019</u>

*By:
/s/ Christine Russell
Christine Russell
Attorney-in-Fact**

** By authority of the Power of Attorney of Directors filed as Exhibit 24.1 to this Registration Statement.



Orrick, Herrington & Sutcliffe LLP
The Orrick Building
405 Howard Street
San Francisco, CA 94105-2669
+1-415-773-5700
orrick.com

August 6, 2019

PDF Solutions, Inc.
2858 De La Cruz Boulevard
Santa Clara, California 95050

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel for PDF Solutions, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's registration statement on Form S-8 (the "Registration Statement"), under the Securities Act of 1933, as amended (the "Securities Act"), relating to the registration of an aggregate of 3,832,635 shares of the Company's common stock, par value \$0.00015 per share (the "Shares"), reserved for issuance pursuant to the Company's Fifth Amended and Restated 2011 Stock Incentive Plan (the "Plan"). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the issuance and sale of the Shares to be issued under the Plan.

In connection with this opinion, we have examined originals or copies, certified or otherwise identified to our satisfaction, of (i) the Third Amended and Restated Certificate of Incorporation of the Company, (ii) the Amended and Restated Bylaws of the Company, (iii) the Registration Statement, (iv) the Plan, and (v) such corporate records, agreements, documents and other instruments, and such certificates or comparable documents of public officials and of officers and representatives of the Company, and have made such inquiries of such officers and representatives, as we have deemed relevant and necessary or appropriate as a basis for the opinion set forth below.

In our examination, we have assumed the legal capacity of all-natural persons, the genuineness of all signatures, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as facsimile, electronic, certified or photostatic copies, and the authenticity of the originals of such copies. In making our examination of documents executed or to be executed, we have assumed that the parties thereto, other than the Company, had or will have the power, corporate or other, to enter into and perform all obligations thereunder and have also assumed the due authorization by all requisite action, corporate or other, and the execution and delivery by such parties of such documents and the validity and binding effect thereof on such parties. As to any facts material to the opinions expressed herein that we did not independently establish or verify, we have relied upon statements and representations of officers and other representatives of the Company and others and of public officials.



August 6, 2019
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Based on the foregoing and subject to the limitations, qualifications and assumptions set forth herein, we are of the opinion that the Shares to be issued pursuant to the terms of the Plan have been duly authorized and, when issued, delivered and paid for in accordance with the terms of the Plan, will be validly issued, fully paid and non-assessable.

The opinion expressed herein is limited to the corporate laws of the State of Delaware and the federal laws of the United States of America, and we express no opinion as to the effect on the matters covered by this letter of the laws of any other jurisdictions.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement. In giving such consent, we do not hereby admit that we are included in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission promulgated thereunder.

Very truly yours,

/s/ ORRICK, HERRINGTON & SUTCLIFFE LLP

ORRICK, HERRINGTON & SUTCLIFFE LLP

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in this Registration Statements on Form S-8 of our reports dated March 7, 2019 related to the consolidated financial statements and the effectiveness of internal control over financial reporting, which appear in PDF Solutions, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018.

/s/ BPM LLP
San Jose, California
August 6, 2019

EXHIBIT 23.2

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 of our report dated March 16, 2018 relating to the financial statements, which appears in PDF Solutions, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2018.

/s/ PricewaterhouseCoopers LLP
San Jose, California
August 6, 2019

EXHIBIT 24.1

POWER OF ATTORNEY

Each of the undersigned directors of PDF Solutions, Inc., a Delaware corporation (the “Company”), hereby constitutes and appoints John K. Kibarian and Christine Russell, and each of them, his or her true and lawful attorneys-in-fact, with full power of substitution, for him or her and in his or her name, place and stead, in his or her capacity as a director, to execute a Registration Statement or Registration Statements on Form S-8 under the Securities Act of 1933, as amended, relating to 3,832,635 shares of Common Stock that are issuable under the PDF Solutions, Inc. Fifth Amended and Restated 2011 Stock Incentive Plan (the “Plan”) and any and all amendments (including post-effective amendments) to such Registration Statements, and to file such Registration Statements and any and all amendments thereto, with exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto such attorneys-in-fact full power and authority to do and perform each and every act and thing necessary or desirable to be done in and about the premises, as fully to all intents and purposes, as he or she might or could do in person, and ratify and confirm all that such attorneys-in-fact or their substitutes may lawfully do or cause to be done by virtue hereof, and hereby consents to such registration of the shares and the issuance thereof pursuant to the terms of the Plan. Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and indicated on the dates below.

Signature	Title	Date
<u>/s/ John Kibarian</u> John K. Kibarian	Director, President and Chief Executive Officer (principal executive officer)	<u>August 6, 2019</u>
<u>/s/ Joseph Bronson</u> Joseph R. Bronson	Lead Independent Director	<u>August 6, 2019</u>
<u>/s/ Nancy Erba</u> Nancy Erba	Director	<u>August 6, 2019</u>
<u>/s/ Michael B. Gustafson</u> Michael B. Gustafson	Director	<u>August 6, 2019</u>
<u>/s/ Marco Iansiti</u> Marco Iansiti	Director	<u>August 6, 2019</u>
<u>/s/ Kimon Michaels</u> Kimon W. Michaels	Director	<u>August 6, 2019</u>
<u>/s/ Gerald Z. Yin</u> Gerald Z. Yin	Director	<u>August 6, 2019</u>
<u>/s/ Shuo Zhang</u> Shuo Zhang	Director	<u>August 6, 2019</u>