

Registration No. 333-45049
 333-69433
 333-106176
 333-122674
 333-132142
 333-148936
 333-157032

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

**POST-EFFECTIVE AMENDMENT NO. 1
 To
 FORM S-8**

**REGISTRATION STATEMENT UNDER
 THE SECURITIES ACT OF 1933**

OSI SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

Delaware
 (State of Incorporation)

33-0238801
 (I.R.S. Employer
 Identification Number)

**12525 Chadron Avenue
 Hawthorne, California 90250**
 (Address of Principal Executive Offices) (Zip Code)

**1987 Incentive Stock Option Plan*
 Amended 1997 Stock Option Plan*
 Amended 1998 Employee Stock Purchase Plan*
 Amended and Restated 2006 Equity Participation Plan*
 2008 Employee Stock Purchase Plan***
 (Full title of the plan)

* See explanatory note on following page

**Deepak Chopra
 President and Chief Executive Officer
 12525 Chadron Avenue
 Hawthorne, California 90250
 (310) 978-0516**
 (Name, address and telephone number for service)

Indicated 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 (1) | Proposed Maximum Aggregate Offering Price (1) | Amount of Registration Fee (1) |
|--|-----------------------------|---|---|--------------------------------|
| Common Stock, \$.001 par value per share | N/A | N/A | N/A | N/A |

(1) The Registrant is not registering additional securities. Registration fees were originally paid by the Registrant's predecessor-in-interest upon filing of the original registration statements on Form S-8 (File Nos. 333-45049, 333-69433, 333-106176, 333-122674, 333-132142, 333-148936 and 333-157032). Consequently, no additional registration fees are required with respect to the filing of this Post-Effective Amendment No. 1.

This Post-Effective Amendment No. 1 shall become effective upon filing in accordance with Rule 462 under the Securities Act.

EXPLANATORY NOTE

On March 5, 2010, OSI Systems, Inc. changed its state of incorporation from California to Delaware. This reincorporation was effectuated by merging the Company with and into a wholly owned Delaware subsidiary established for such purpose, following approval by the requisite vote of shareholders at the company's Annual Meeting of Shareholders on March 5, 2010. OSI Systems, Inc., a Delaware corporation ("OSI Delaware," the "Company" or the "Registrant"), is deemed to be the successor issuer of OSI Systems, Inc., a California corporation ("OSI California"), under Rule 12g-3 of the Securities Exchange Act of 1934, as amended (the "Exchange Act").

OSI Delaware as the successor issuer of OSI California is filing this Post-Effective Amendment No. 1 to registration statements on Form S-8, File Nos. 333-45049, 333-69433, 333-106176, 333-122674, 333-132142, 333-148936 and 333-157032 (the "Registration Statements"), pursuant to Rule 414 promulgated under the Securities Act of 1933, as amended (the "Securities Act"), solely to update the Registration Statements as a result of the Registrant's reincorporation in the State of Delaware from the State of California (the "Reincorporation").

In connection with the Reincorporation, OSI Delaware assumed the OSI California 1987 Incentive Stock Option Plan, Amended 1997 Stock Option Plan, Amended 1998 Employee Stock Purchase Plan, Amended and Restated 2006 Equity Participation Plan and 2008 Employee Stock Purchase Plan (collectively, the "Plans") and all of the outstanding options and equity awards under the Plans. At the effective time of the Reincorporation, each outstanding option to purchase shares of OSI California Common Stock was converted into an option to purchase the same number of shares of OSI Delaware Common Stock, with no changes in the option exercise price or other terms and conditions of such options.

In accordance with paragraph (d) of Rule 414 of the Securities Act, except as modified by this Post-Effective Amendment No. 1, the Registrant, as successor issuer to OSI California pursuant to Rule 12g-3 promulgated under the Exchange Act, hereby expressly adopts the Registration Statements as its own registration statements for all purposes of the Securities Act and the Exchange Act, as updated by subsequent filings under the Exchange Act, including, but not limited to, OSI California's most recent annual report on Form 10-K and OSI Delaware's description of the common stock as set forth on Form 8-A/A filed with the Securities and Exchange Commission ("SEC") on March 8, 2010. The applicable registration fees were paid at the time of the original filings of the Registration Statements.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference

The following documents, which have been filed with or furnished to the SEC by the Registrant or OSI California are incorporated herein by reference and made a part hereof:

1. OSI California's Annual Report on Form 10-K for the fiscal year ended June 30, 2009, filed with the SEC on August 28, 2009, as amended by Amendment No. 1 to Form 10-K, filed with the SEC on October 28, 2009;
2. OSI California's Definitive Proxy Statement on Schedule 14A, filed with the SEC on January 5, 2010, as amended by Amendment No. 1 to Schedule 14A, filed with the SEC on February 5, 2010;
3. OSI California's Quarterly Reports on Form 10-Q for the period ended September 30, 2009, filed with the SEC on October 28, 2009, and for the period ended December 31, 2009, filed with the SEC on January 28, 2010;
4. OSI California's Current Reports on Form 8-K, filed with the SEC on September 16, 2009, December 10, 2009, December 21, 2009, January 8, 2010, and the Registrant's Current Report on Form 8-K, filed with the SEC on March 8, 2010; and
5. The description of Common Stock of the Registrant contained in the Registrant's Registration Statement on Form 8-A/A filed with the SEC on March 8, 2010, including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Section 13(a), 13(c), 14 and 15(d) of the Exchange Act, after the date of this Registration Statement and 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 are incorporated by reference in this Registration Statement and are part hereof from the date of filing such documents. A report on Form 8-K furnished to the SEC shall not be incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein 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 by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities

Not applicable.

Item 5. Interests of Named Experts and Counsel

None.

Item 6. Indemnification of Directors and Officers

The Registrant's Certificate of Incorporation provides that, to the fullest extent permitted by law, a director of the Registrant shall not be personally liable to the Registrant or its stockholders for monetary damages for breach of fiduciary duty as a director. The Registrant's Certificate of Incorporation eliminates the personal liability of directors to the fullest extent permitted by the Delaware General Corporation Law and, together with the Registrant's Bylaws, provides that the Registrant shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or

proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Registrant or, while a director or officer of the Registrant, is or was serving at the request of the Registrant as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person. The Registrant has also obtained liability insurance for its officers and directors and has assumed indemnification agreements that the predecessor OSI California had entered into with its directors and officers.

Item 8. Exhibits

| Exhibit Number | Description |
|-----------------------|--|
| 5.1 | Opinion of Loeb & Loeb LLP, Counsel to Company |
| 10.1 | 1987 Incentive Stock Option Plan (1) |
| 10.2 | Amended 1997 Stock Option Plan (2) |
| 10.3 | Amended 1998 Employee Stock Purchase Plan (3) |
| 10.4 | Amended and Restated 2006 Equity Participation Plan (4) |
| 10.5 | 2008 Employee Stock Purchase Plan (5) |
| 23.1 | Consent of Loeb & Loeb LLP (contained in Exhibit 5.1) |
| 23.3 | Consent of Moss Adams LLP, Independent Registered Public Accounting Firm |
| 24.1 | Power of Attorney (included on signature page) |

- (1) Previously filed as an exhibit to OSI California's Registration Statement on Form S-1, filed June 13, 1997.
- (2) Previously filed with as an exhibit to OSI California's Registration Statement on Form S-8 filed February 9, 2005.
- (3) Previously filed as an exhibit to OSI California's Registration Statement on Form S-8 filed March 1, 2006.
- (4) Previously filed as an exhibit to OSI California's Current Report on Form 8-K filed December 7, 2007.
- (5) Previously filed as an exhibit to OSI California's Proxy Statement on Schedule 14A filed October 14, 2008

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 this 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;
 - (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 periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the 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 (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 this Registration Statement shall be deemed to be a new registration statement relating to the securities offered herein, 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 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, the Registrant, OSI Systems, Inc., a corporation organized under the laws of the State of Delaware, certifies that it has reasonable grounds to believe that it meets all 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 Hawthorne, California, as of March 9, 2010.

OSI SYSTEMS, INC.

By: _____ /s/ ALAN EDRIK
Alan Edrick
Chief Financial Officer

POWER OF ATTORNEY

Each of the undersigned hereby constitutes and appoints Messrs. Alan Edrick, Chief Financial Officer, and Victor Sze, General Counsel, and each of them, as his attorneys-in-fact and agents, with full power of substitution and resubstitution for him or her in any and all capacities, to sign any and all amendments or post-effective amendments to this Post-Effective Amendment to Registration Statement, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto each of such attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary in connection with such matters and hereby ratifying and confirming all that each of such attorneys-in-fact and agents or his substitutes may do or cause to be done by virtue hereof.

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

| <u>Signature</u> | <u>Title</u> | <u>Date</u> |
|--|--|---------------|
| <u>/S/ DEEPAK CHOPRA</u> Deepak Chopra | President, Chief Executive Officer (Principal Executive Officer) and Chairman of the Board | March 9, 2010 |
| <u>/S/ ALAN EDRICK</u> Alan Edrick | Chief Financial Officer (Principal Financial and Accounting Officer) | March 9, 2010 |
| <u>/S/ AJAY MEHRA</u> Ajay Mehra | Executive Vice President, President of Rapiscan Systems, and Director | March 9, 2010 |
| <u>/S/ STEVEN C. GOOD</u> Steven C. Good | Director | March 9, 2010 |
| <u>/S/ MEYER LUSKIN</u> Meyer Luskin | Director | March 9, 2010 |
| <u>/S/ LESLIE E. BIDER</u> Leslie E. Bider | Director | March 9, 2010 |
| <u>/S/ DAVID T. FEINBERG</u> David T. Feinberg | Director | March 9, 2010 |

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OPINION OF LOEB & LOEB LLP

March 9, 2010

OSI Systems, Inc.
12525 Chadron Avenue
Hawthorne, California 90250

Re: Post-Effective Amendment No. 1 to Form S-8

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with your filing of Post-Effective Amendment No. 1 to registration statements on Form S-8, File Nos. 333-45049, 333-69433, 333-106176, 333-122674, 333-132142, 333-148936 and 333-157032 (the "Registration Statements"), pursuant to the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to the registration of up to 7,816,502 shares of Common Stock, \$0.001 par value per share (the "Shares"), of OSI Systems Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's 1987 Incentive Stock Option Plan, Amended 1997 Stock Option Plan, Amended 1998 Employee Stock Purchase Plan, Amended and Restated 2006 Equity Participation Plan and 2008 Employee Stock Purchase Plan (the "Plans").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions expressed below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinion set forth below, on certificates of officers of the Company.

The opinion expressed below is limited to the Delaware General Corporation Law (which includes applicable provisions of the Delaware Constitution and reported judicial decisions interpreting the Delaware General Corporation Law and the Delaware Constitution).

For purposes of the opinion expressed below, we have assumed that a sufficient number of authorized but unissued shares of the Company's Common Stock will be available for issuance when the Shares are issued.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Plans, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statements. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ LOEB & LOEB LLP

LOEB & LOEB LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Post-Effective Amendment No. 1 to Registration Statement Nos. 333-45049, 333-69433, 333-106176, 333-122674, 333-132142, 333-148936 and 333-157032 on Form S-8 of our reports dated August 28, 2009 relating to the financial statements and financial statement schedule of OSI Systems, Inc., and the effectiveness of internal controls over financial reporting, appearing in the Annual Report on Form 10-K of OSI Systems, Inc. for the year ended June 30, 2009.

/s/ Moss Adams LLP

Los Angeles, California
March 9, 2010