

As filed with the Securities and Exchange Commission on April 27, 2011

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

**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)

**Amended and Restated 2006 Equity Participation Plan**  
(Full title of the plan)

**Deepak Chopra**  
**President and Chief Executive Officer**  
**12525 Chadron Avenue**  
**Hawthorne, California 90250**  
**(310) 978-0516**  
(Name, address and telephone number of agent 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   
Non-accelerated filer   
(Do not check if a smaller reporting company)

Accelerated filer   
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, \$.001 par value per share	1,350,000	\$ 36.62	\$ 49,437,000	\$ 5,739.64

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover an indeterminate number of additional shares of common stock as may be required in the event of a stock dividend, reverse stock split or combination of shares, recapitalization or other change in the Registrant's capital stock.
- (2) Estimated pursuant to Rule 457(h) under the Securities Act solely for the purpose of calculating the registration fee, based upon the average of the high and low sales prices of the Registrant's common stock as reported on the Nasdaq Global Select Market on April 21, 2011.

At OSI Systems, Inc.'s (the "Registrant's") 2010 Annual Meeting of Stockholders on November 30, 2010 (the "Annual Meeting"), the stockholders approved an amendment to the Registrant's Amended and Restated 2006 Equity Participation Plan (the "2006 Plan") to increase the authorized shares under the 2006 Plan by 1,350,000.

This Registration Statement has been prepared and filed pursuant to and in accordance with the requirements of General Instruction E to Form S-8 for the purpose of effecting the registration under the Securities Act of the additional shares of common stock issuable under the 2006 Plan. Pursuant to General Instruction E to Form S-8, the registrant hereby incorporates herein by reference the contents of the Registration Statement previously filed on Form S-8 (File No. 333-148936) on January 30, 2008 by the Registrant, as amended by Amendment No. 1 to the Registrant's Registration Statement on Form S-8 filed on March 9, 2010.

## PART II

### INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

#### Item 3. Incorporation of Documents by Reference

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

1. The Registrant's Annual Report on Form 10-K for the fiscal year ended June 30, 2010, filed with the SEC on August 27, 2010;
2. The Registrant's Definitive Proxy Statement on Schedule 14A, filed with the SEC on October 12, 2010, and Definitive Additional Materials filed on Schedule 14A with the SEC on October 12, 2010;
3. The Registrant's Quarterly Reports on Form 10-Q for the period ended September 30, 2010, filed with the SEC on October 27, 2010, for the period ended December 31, 2010, filed with the SEC on January 26, 2011, and for the period ended March 31, 2011, filed with the SEC on April 27, 2011;
4. The Registrant's Current Reports on Form 8-K, filed with the SEC on October 19, 2010 and December 1, 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.

2

#### Item 8. Exhibits

Exhibit Number	Description
5.1	Opinion of Loeb & Loeb LLP, Counsel to Registrant
10.1	Amended and Restated 2006 Equity Participation Plan (1)
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	Power of Attorney (included in the signature page to this registration statement)

(1) Previously filed as Appendix A to the Registrant's Proxy Statement on Schedule 14A filed October 12, 2010

3

### 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 April 27, 2011.

OSI SYSTEMS, INC.

By: \_\_\_\_\_ /S/ ALAN EDRIK  
Alan Edrick  
Chief Financial Officer

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 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 Registration Statement has been signed below by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/S/ DEEPAK CHOPRA <b>Deepak Chopra</b>	President, Chief Executive Officer (Principal Executive Officer) and Chairman of the Board	April 27, 2011
/S/ ALAN EDRICK <b>Alan Edrick</b>	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	April 27, 2011
/S/ AJAY MEHRA <b>Ajay Mehra</b>	Executive Vice President, President of Rapiscan Systems, and Director	April 27, 2011
/S/ STEVEN C. GOOD <b>Steven C. Good</b>	Director	April 27, 2011
/S/ MEYER LUSKIN <b>Meyer Luskin</b>	Director	April 27, 2011
/S/ WILLIAM F. BALLHAUS <b>William F. Ballhaus</b>	Director	April 27, 2011
/S/ DAVID T. FEINBERG <b>David T. Feinberg</b>	Director	April 27, 2011

4

#### INDEX TO EXHIBITS

Exhibit Number	Description
5.1	Opinion of Loeb & Loeb LLP, Counsel to Registrant
10.1	Amended and Restated 2006 Equity Participation Plan (1)
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	Power of Attorney (included in the signature page to this registration statement)

(1) Previously filed as Appendix A to the Registrant's Proxy Statement on Schedule 14A filed October 12, 2010

5

## OPINION OF LOEB &amp; LOEB LLP

April 27, 2011

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

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

This opinion letter is furnished to you in connection with your filing of a registration statement on Form S-8, (the "Registration Statement"), 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 1,350,000 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 Amended and Restated 2006 Equity Participation Plan (the "Plan").

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 Plan, will be validly issued, fully paid and nonassessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. 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 the Registration Statement on Form S-8 of our reports dated August 27, 2010 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, 2010.

/s/ MOSS ADAMS LLP

Los Angeles, California  
April 27, 2011

---