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 or other jurisdiction of incorporation or organization)

330238801

(I.R.S. Employer Identification No.)

12525 Chadron Avenue Hawthorne, California 90250

(Address of principal executive offices)

Amended and Restated OSI Systems, Inc. 2012 Incentive Award Plan

(full title of the plan)

Deepak Chopra President and Chief Executive Officer 12525 Chadron Avenue Hawthorne, California 90250

(Name and address of agent for service)

(310) 978-0516

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

Copies to:

Victor Sze

Executive Vice President, General Counsel and Secretary 12525 Chadron Avenue Hawthorne, California 90250

Cary K. Hyden

Latham & Watkins LLP 650 Town Center Drive, 20th Floor Costa Mesa, California 92626 (714) 540-1235

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

Large accelerated filer x Accelerated filer o

Non-accelerated filer o (do not check if a smaller reporting company) Smaller reporting company o

Emerging growth company

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. o

CALCULATION OF REGISTRATION FEE

Title of Each Class of	Amount to be	Proposed Maximum Offering Price	Proposed Maximum Aggregate	Amount of
Securities to be Registered	Registered (1)	Per Share (2)	Offering Price	Registration Fee
Common Stock, par value \$0.001 per share	1,600,000 shares	\$ 56.66	\$ 90,656,000	\$ 11,286.67

This Registration Statement registers 1,600,000 shares of common stock, par value \$0.001 per share (the "Common Stock"), of OSI Systems, Inc. (the "Company" or the "Registrant") for issuance pursuant to the Amended and Restated OSI Systems, Inc. 2012 Incentive Award Plan (the "Plan"), an employee benefit plan, in addition to the 3,500,000 shares of Common Stock which were registered under the Plan on Form S-8 (File No. 333-190693) filed with the Securities Exchange Commission on August 16, 2013 (the "Prior Form S-8"). The contents of the Prior Form S-8 are incorporated into this Registration Statement by reference. The total number of shares of Common Stock registered under this Registration Statement and under the Prior Form S-8 equals 5,100,000 shares. In addition, pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement also covers any additional shares of the Company's Common Stock that may become issuable under the Plan by reason of any substitutions or adjustments to shares to account for any change in corporate capitalization, such as a merger, consolidation,

reorganization, recapitalization, separation, partial or complete liquidation, stock dividend, stock split, reverse stock split, split up, spin-off, or other distribution of stock or property of the Company, combination or exchange of shares of Common Stock, dividend in kind, or other like change in capital structure.

(2) Pursuant to Rule 457(h) of the Securities Act, the Proposed Maximum Offering Price is estimated solely for the purpose of calculating the registration fee and is based on the average of the high and low market prices for the Common Stock reported on the NASDAQ Global Select Market on February 6, 2018 (\$56.66).

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed in order to register the 1,600,000 additional shares of Common Stock which may be offered or sold to participants under the Plan.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Item 1. Plan Information.

Not required to be filed with this Registration Statement.

Item 2. Registrant Information and Employee Plan Annual Information.

Not required to be filed with this Registration Statement.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents filed with the Securities and Exchange Commission (the "Commission") by the Company are incorporated as of their respective dates in this Registration Statement by reference:

- (a) the Company's Annual Report on Form 10-K for the year ended June 30, 2017, filed on September 7, 2017.
- (b) the Company's Definitive Proxy Statement on Schedule 14A for its Annual Meeting of Stockholders on December 11, 2017, filed on October 23, 2017
- (c) the Company's Quarterly Reports on Form 10-Q for the quarterly period ended September 30, 2017, filed on October 31, 2017, and for the quarterly period ended December 31, 2017, filed on February 6, 2018.
- (d) the Company's Current Reports on Form 8-K filed on December 12, 2017, January 5, 2018, January 16, 2018, and the Current Report on Form 8-K filed under item 8.01 on February 1, 2018.
- (e) the description of the Company's common stock contained in the Registration Statement on Form 8-A/A filed with the Commission on March 8, 2010, including any amendments or reports filed for the purpose of updating such description.

All documents subsequently filed by the Company or with respect to the Plan pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, 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 in this Registration Statement and to be a part hereof from their dates of filing; except as to any portion of any current report furnished under Items 2.02 or 7.01 of Form 8-K, including any exhibits included with such Items, that is not deemed filed under such provisions.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this Registration Statement is 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 subsequently filed document which also is or is deemed to be incorporated by reference in this Registration Statement 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.

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Item 4. Description of Securities.

Not required to be filed with this Registration Statement.

Item 5. Interests of Named Experts and Counsel.

Not applicable.

Item 6. Indemnification of Directors and Officers.

Section 102(b)(7) of the Delaware General Corporation Law, or DGCL, provides that a corporation may, in its original certificate of incorporation or an amendment thereto, eliminate or limit the personal liability of a director for violations of the director's fiduciary duty, except (1) for any breach of the

director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) pursuant to Section 174 of the DGCL, which provides for liability of directors for unlawful payments of dividends or unlawful stock purchases or redemptions or (4) for any transaction from which a director derived an improper personal benefit.

Section 145 of the DGCL provides that a corporation may indemnify any person, including an officer or director, who is, or is threatened to be made, party to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of such corporation, by reason of the fact that such person was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the corporation's best interest and, for criminal proceedings, had no reasonable cause to believe that his conduct was unlawful. A Delaware corporation may indemnify any officer or director in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses that such officer or director actually and reasonably incurred.

The Company's bylaws provide for indemnification of the officers and directors to the fullest extent permitted by applicable law.

The Company also maintains a general liability insurance policy which covers certain liabilities of directors and officers of the Company arising out of claims based on acts or omissions in their capacities as directors or officers, whether or not the Company would have the power to indemnify such person against such liability under the DGCL or the provisions of the Company's certificate of incorporation or bylaws.

The Company has entered into indemnification agreements with each of its directors and certain of its officers. These agreements provide that the Company will indemnify each of its directors and such officers to the fullest extent permitted by law and by the Company's certificate of incorporation and bylaws.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

Exhibit Number	Description of Exhibit					
4.1	Certificate of Incorporation of the Company (incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K12G3 filed with the Commission on March 8, 2010)					
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4.2	Bylaws of the Company (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K12G3 filed with the Commission on March 8, 2010)					
4.3	Form of Common Stock Certificate (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K12G3 filed with the Commission on March 8, 2010)					
5.1	Opinion of Latham & Watkins LLP+					
23.1	Consent of Latham & Watkins LLP (included in Exhibit 5.1)+					
23.2	Consent of Moss Adams LLP, Independent Registered Public Accounting Firm+					
24.1	Power of Attorney (included in the signature page hereto)+					
99.1	OSI System, Inc. Amended and Restated 2012 Incentive Award Plan (incorporated by reference to Appendix A to the Company's Definitive Proxy Statement filed with the Commission on October 23, 2017)					
+ Filed herewi	th					

Item 9. Undertakings.

Not required to be filed with this Registration Statement.

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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 Hawthorne, state of California, on February 9, 2018.

OSI SYSTEMS, INC.

By: /s/ Alan Edrick

Alan Edrick

Executive Vice President and Chief Financial Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below, hereby constitutes and appoints Deepak Chopra, Alan Edrick and Victor Sze and each acting alone, his or her true and lawful attorneys-in-fact and agents, with full power of resubstitution and substitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any or all amendments or supplements to this Registration Statement and to file the same with all exhibits thereto and other documents in connection therewith, with the Commission, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing necessary or appropriate to be done with respect to this Registration Statement or any amendments or supplements hereto in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, each acting alone, or his substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in their respective capacities with OSI Systems, Inc. and on the dates indicated.

Signatures	Titles	Date
/s/ Deepak Chopra Deepak Chopra	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	February 9, 2018
/s/ Alan Edrick Alan Edrick	Executive Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	February 9, 2018
/s/ Ajay Mehra Ajay Mehra	Executive Vice President and Director	February 9, 2018
/s/ William F. Ballhaus, Jr. William F. Ballhaus, Jr.	Director	February 9, 2018
/s/ Gerald Chizever Gerald Chizever	Director	February 9, 2018
/s/ Steven C. Good Steven C. Good	Director	February 9, 2018
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/s/ James B. Hawkins James B. Hawkins	Director	February 9, 2018
/s/ Meyer Luskin Meyer Luskin	Director	February 9, 2018
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LATHAM&WATKINS LLP

February 9, 2018

OSI Systems, Inc. 12525 Chadron Avenue Hawthorne, California 90250 650 Town Center Drive, 20th Floor Costa Mesa, California 92626-1925 Tel: +1.714.540.1235 Fax: +1.714.755.8290

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FIRM / AFFILIATE OFFICES Barcelona Moscow Beijing Munich Boston New York Brussels Orange County Century City Chicago Riyadh Dubai Rome Düsseldorf San Diego Frankfurt San Francisco Hamburg Seoul Hong Kong Shanghai Houston Silicon Valley London Singapore Los Angeles Tokvo Washington, D.C. Madrid

Re: Registration Statement on Form S-8 with respect to 1,600,000 shares of common stock, par value \$0.001 per share

Ladies and Gentlemen:

We have acted as special counsel to OSI Systems, Inc., a Delaware corporation (the "Company"), in connection with the proposed issuance of up to 1,600,000 shares of common stock, par value \$0.001 per share (the "Shares"), issuable pursuant to the OSI Systems, Inc. Amended and Restated 2012 Incentive Award Plan (the "Plan"). The Shares are included in a registration statement on Form S-8 under the Securities Act of 1933, as amended (the "Act"), filed with the Securities and Exchange Commission (the "Commission") on February 9, 2018 (the "Registration Statement"). This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement, other than as expressly stated herein with respect to the issue of the Shares.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware (the "DGCL"), and we express no opinion with respect to any other laws.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof, when the Shares shall have been duly registered on the books of the transfer agent and registrar therefor in the name or on behalf of the recipient and have been issued by the Company for legal consideration in excess of par value in the circumstances contemplated by the Plan, assuming in each case that the individual grants or awards under the Plan are duly authorized by all necessary corporate action and duly granted or awarded and exercised in

February 9, 2018

LATHAM&WATKINS OF

accordance with the requirements of law and the Plan (and the agreements and awards duly adopted thereunder and in accordance therewith), the issue and sale of the Shares will have been duly authorized by all necessary corporate action of the Company, and the Shares will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the DGCL.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Act. We consent to your filing this opinion as an exhibit to the Registration Statement. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Latham & Watkins

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement (Form S-8) of OSI Systems, Inc. (the "Company") of our report dated September 6, 2017, relating to the Company's consolidated financial statements and financial statement schedule (which report expresses an unqualified opinion and includes an explanatory paragraph relating to the adoption of Accounting Standards Update 2016-09, Improvements to Employee Share-based Payment Accounting) and the effectiveness of internal control over financial reporting of the Company (which report expresses an adverse opinion), appearing in the Annual Report (Form 10-K) for the year ended June 30, 2017.

/s/ Moss Adams LLP

Los Angeles, California February 9, 2018