

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

**FORM S-8
REGISTRATION STATEMENT**

*UNDER
THE SECURITIES ACT OF 1933*

INFUSYSTEM HOLDINGS, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware
(State or Other Jurisdiction of Incorporation or Organization)

20-3341405
(IRS Employer Identification No.)

**InfuSystem Holdings, Inc.
31700 Research Park Drive
Madison Heights, Michigan 48071**
(Address of Principal Executive Offices)(Zip Code)

**InfuSystem Holdings, Inc.
2007 Stock Incentive Plan**
(Full Title of the Plan)

**Sean McDevitt
Chief Executive Officer
InfuSystem Holdings, Inc.
31700 Research Park Drive
Madison Heights, Michigan 48071**
(Name and address of agent for service)

(248) 291-1210
(Telephone number, including area code, of agent for service)

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 the 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 (3)	Amount of Registration Fee
Common Stock, par value \$0.0001 per share	3,000,000 shares	\$2.18	\$6,540,000	\$759.29

- (1) Pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of the Registrant's common stock issuable pursuant to the InfuSystem Holdings, Inc. 2007 Stock Incentive Plan as a result of any stock dividend, stock split, recapitalization or other similar transaction.
- (2) Calculated pursuant to paragraphs (c) and (h) of Rule 457 (based upon the average of the high and low prices for the Common Stock as reported by the NYSE AMEX on June 9, 2011). The foregoing calculation is solely for the purpose of determining the registration fee.
- (3) Based on the proposed maximum offering price per share, calculated as described in footnote (2) above.

INCORPORATION BY REFERENCE

Pursuant to the InfuSystem Holdings, Inc. 2007 Stock Incentive Plan (the "Plan"), InfuSystem Holdings, Inc. (the "Registrant") is registering an additional 3,000,000 shares of its common stock, par value \$0.0001 per share ("Common Stock"). The Registrant has previously registered an aggregate of 2,000,000 shares of Common Stock pursuant to a Registration Statement on Form S-8 respecting the Plan, filed with the Securities and Exchange Commission (the "Commission") on April 3, 2008 (File No. 333-150066). The contents of such Registration Statement on Form S-8 are hereby incorporated by reference.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in Madison Heights, Michigan on June 10, 2011.

INFUSYSTEM HOLDINGS, INC.

By: /s/ Sean McDevitt

Name: Sean McDevitt

Title: Chief Executive Officer

POWER OF ATTORNEY

Each person whose signature appears below hereby constitutes and appoints Sean McDevitt and James M. Froisland, and each of them, as his true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution for him and in his name, place and stead, in any and all capacities, to sign any or all amendments or supplements to this Registration Statement (including registration statements filed pursuant to Rule 462(b) under the Securities Act), whether pre-effective or post-effective, 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, and each of them, 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 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 or his substitute or substitutes, may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons, in the capacities and on June 10, 2011.

Signature

Title

 /s/ Sean McDevitt

Sean McDevitt

Chief Executive Officer and Chairman of the Board of Directors
(Principal Executive Officer)

 /s/ James M. Froisland

James M. Froisland

Chief Financial Officer
(Principal Financial and Accounting Officer)

/s/ David Dreyer Director
David Dreyer

/s/ Timothy Kopra Director
Timothy Kopra

/s/ Pat LaVecchia Director
Pat LaVecchia

/s/ Jean-Pierre Millon Director
Jean-Pierre Millon

/s/ John Voris Director
John Voris

/s/ Wayne Yetter Director
Wayne Yetter

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
4.1	InfuSystem Holdings, Inc. 2007 Stock Incentive Plan (incorporated by reference to Exhibit 4.1 to the Registrant's Registration Statement on Form S-8 filed with the Commission on April 3, 2008 (File No. 333-150066)).
5.1*	Opinion of Morgan, Lewis & Bockius LLP
23.1*	Consent of Deloitte & Touche LLP
24	Power of Attorney (included on the signature page to this Registration Statement)

* Filed herewith

June 10, 2011

InfuSystem Holdings, Inc.
31700 Research Park Drive
Madison Heights, Michigan 48071

Re: InfuSystem Holdings, Inc. 2007 Stock Incentive Plan

Ladies and Gentlemen:

We have acted as counsel to InfuSystem Holdings, Inc., a Delaware corporation (the "Company"), in connection with the filing of a Registration Statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), with the Securities and Exchange Commission (the "Commission"). This Registration Statement relates to the registration of 3,000,000 shares of common stock, par value \$0.0001 per share (the "Common Stock") under the InfuSystem Holdings, Inc. 2007 Stock Incentive Plan (the "Plan").

In connection with this opinion letter, we have examined the Registration Statement and originals, or copies certified or otherwise identified to our satisfaction, of the Amended and Restated Certificate of Incorporation and Amended and Restated By-Laws of the Company and such other documents, records and other instruments as we have deemed appropriate for purposes of the opinion set forth herein. In such examinations we have assumed 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 copies and the authenticity of the originals of all copies.

Based on the foregoing, we are of the opinion that such shares of Common Stock being registered pursuant to the Registration Statement to be issued under the Plan have been duly authorized and, if and when issued and paid for in full in accordance with the Plan as contemplated by the Registration Statement, will be validly issued, fully paid and non-assessable.

This opinion letter is rendered as of the date first written above and we disclaim any obligation to advise you of facts, circumstances, events or developments which hereafter may be brought to our attention and may alter, affect or modify the opinion expressed herein. Our opinion is expressly limited to the matters set forth above and we render no opinion, whether by implication or otherwise, to any other matters relating to the Company or the Common Stock.

We hereby consent to the use of this opinion as Exhibit 5.1 to the Registration Statement. In giving such consent, we do not admit that we are acting within the category of persons whose consent is required under the provisions of the Securities Act or the rules or regulations of the Commission thereunder.

Very truly yours,

/s/ Morgan, Lewis & Bockius LLP

Exhibit 23.1

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Detroit, MI 48243-1895
USA
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www.deloitte.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report appearing in the Annual Report on Form 10-K of InfuSystem Holdings, Inc. and subsidiaries for the year ended December 31, 2010.

/s/ Deloitte & Touche LLP

Detroit, Michigan

June 10, 2011

Member of
Deloitte Touche Tohmatsu