

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

FORM 10-K
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF
THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2009

Commission File #0-6072

EMS TECHNOLOGIES, INC.

(Exact name of registrant as specified in its charter)

Georgia

(State or other jurisdiction of
incorporation or organization)

58-1035424

(IRS Employer ID Number)

660 Engineering Drive, Norcross, Georgia

(Address of principal executive offices)

30092

(Zip Code)

Registrant's telephone number, including area code: (770) 263-9200

Securities registered pursuant to Section 12(b) of the Act:

Title of Class

Common Stock, \$.10 par value

Securities registered pursuant to Section 12(g) of the Act: None

Exchange on Which Registered

Nasdaq Global Select Market

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act: Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act: Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days: Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K:

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: Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act): Yes No

The aggregate market value of voting stock held by persons other than directors or executive officers as of July 2, 2009 was \$315 million, based on a closing price of \$20.87 per share. The basis of this calculation does not constitute a determination by the registrant that all of its directors and executive officers are affiliates as defined in Rule 405.

As of March 26, 2010, the number of shares of the registrant's common stock outstanding was 15,248,681 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information contained in the Company's definitive proxy statement for the 2010 Annual Meeting of Shareholders of the registrant is incorporated herein by reference in Part III of this Annual Report on Form 10-K.