

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

**FORM 8-A**

**FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES  
PURSUANT TO SECTION 12(b) OR 12(g) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

**LIGHTBRIDGE CORPORATION**

(Exact name of registrant as specified in its charter)

Nevada

(State of incorporation or organization)

91-1975651

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

1600 Tyson's Boulevard, Suite 550  
McLean, Virginia

(Address of principal executive offices)

22102

(Zip Code)

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

Title of each class  
to be so registered

Name of each exchange on which  
each class is to be registered

Common Stock, Par Value \$0.001

The NASDAQ Stock Market LLC

If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d), check the following box.

Securities Act registration statement file number to which this form relates: \_\_\_\_\_ (if applicable)

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

None

(Title of class)

**INFORMATION REQUIRED IN REGISTRATION STATEMENT**

**Item 1. Description of Registrant's Securities to be Registered.**

For a description of the securities to be registered hereunder, reference is made to the information set forth under the heading "Description of Capital Stock" contained in the prospectus included as part of the Registrant's registration statement on Form SB-2 (File No. 333-135437) filed with the Securities and Exchange Commission under the Securities Act of 1933, as amended, which information is incorporated herein by reference.

**Item 2. Exhibits.**

Under the Instructions as to Exhibits with respect to Form 8-A, no exhibits are required to be filed, because no other securities of the Registrant are registered on The Nasdaq Stock Market, Inc. and the securities registered hereby are not being registered pursuant to Section 12(g) of the Exchange Act.

**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

**LIGHTBRIDGE CORPORATION**

By: /s/ Seth Grae

Seth Grae

President and Chief Executive Officer

Dated: October 8, 2009