

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Bergmann Rouven</u> (Last) (First) (Middle) C/O MEDIDATA SOLUTIONS, INC. 350 HUDSON STREET, 9TH FLOOR (Street) NEW YORK NY 10014 (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>Medidata Solutions, Inc. [MDSO]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Financial Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>02/05/2019</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	02/05/2019		M		525 ⁽¹⁾	A	\$53.29	79,561 ⁽²⁾	D	
Common Stock	02/05/2019		S		525 ⁽¹⁾	D	\$75 ⁽³⁾	79,036	D	
Common Stock	02/05/2019		S		2,512 ⁽¹⁾	D	\$75	76,524	D	
Common Stock	02/06/2019		M		9,475 ⁽¹⁾	A	\$53.29	85,999	D	
Common Stock	02/06/2019		S		9,475 ⁽¹⁾	D	\$75	76,524	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Stock Option (right to buy)	\$53.29	02/05/2019		M			525 ⁽¹⁾	(4)	05/13/2025	Common Stock	525	\$0	17,118	D	
Stock Option (right to buy)	\$53.29	02/06/2019		M			9,475 ⁽¹⁾	(4)	05/13/2025	Common Stock	9,475	\$0	7,643	D	

Explanation of Responses:

- The sale reported in this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on July 26, 2018.
- Included are 174 shares which were purchased pursuant to the terms of the Medidata Solutions, Inc. Employee Stock Purchase Plan on December 31, 2018.
- Such transaction was executed in multiple trades at prices ranging from \$75.00 to \$75.01. The price reported reflects the weighted average sale price. The reporting person hereby undertakes to provide upon request to the SEC staff, the issuer or a security holder of the issuer full information regarding the number of shares and prices at which the transaction was effected.
- The options vested as to 25% of the shares on May 13, 2016 and 1/36th of the remaining options will become exercisable each month thereafter for the next 36 months.

Remarks:

/s/ Michael I. Otner, Attorney-in-Fact 02/07/2019

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.