

Form 5500 Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Annual Return/Report of Employee Benefit Plan This form is required to be filed for employee benefit plans under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and sections 6057(b) and 6058(a) of the Internal Revenue Code (the Code). <p style="text-align: center;">▶ Complete all entries in accordance with the instructions to the Form 5500.</p>	OMB Nos. 1210-0110 1210-0089 2018 This Form is Open to Public Inspection
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Part I	Annual Report Identification Information For calendar plan year 2018 or fiscal plan year beginning <u>01/01/2018</u> and ending <u>12/31/2018</u>
A This return/report is for:	☐ a multiemployer plan ☐ a multiple-employer plan (Filers checking this box must attach a list of participating employer information in accordance with the form instructions.) ☒ a single-employer plan ☐ a DFE (specify) _____
B This return/report is:	☐ the first return/report ☐ the final return/report ☒ an amended return/report ☐ a short plan year return/report (less than 12 months)
C If the plan is a collectively-bargained plan, check here. ▶	☐
D Check box if filing under:	☒ Form 5558 ☐ automatic extension ☐ the DFVC program ☐ special extension (enter description)

Part II	Basic Plan Information—enter all requested information		
1a Name of plan <u>MEDIDATA SOLUTIONS, INC. 401(K) RETIREMENT SAVINGS PLAN</u>	1b Three-digit plan number (PN) ▶	<u>001</u>	
2a Plan sponsor's name (employer, if for a single-employer plan) Mailing address (include room, apt., suite no. and street, or P.O. Box) City or town, state or province, country, and ZIP or foreign postal code (if foreign, see instructions) <u>MEDIDATA SOLUTIONS, INC.</u> <u>350 HUDSON STREET</u> <u>9TH FLOOR</u> <u>NEW YORK, NY 10014</u>	1c Effective date of plan <u>01/01/2004</u>	2b Employer Identification Number (EIN) <u>13-4066508</u>	
		2c Plan Sponsor's telephone number <u>212-659-1189</u>	
		2d Business code (see instructions) <u>541600</u>	

Caution: A penalty for the late or incomplete filing of this return/report will be assessed unless reasonable cause is established.

Under penalties of perjury and other penalties set forth in the instructions, I declare that I have examined this return/report, including accompanying schedules, statements and attachments, as well as the electronic version of this return/report, and to the best of my knowledge and belief, it is true, correct, and complete.

SIGN HERE	Filed with authorized/valid electronic signature.	09/20/2019	CARRIE THEISEN
	Signature of plan administrator	Date	Enter name of individual signing as plan administrator
SIGN HERE			
	Signature of employer/plan sponsor	Date	Enter name of individual signing as employer or plan sponsor
SIGN HERE			
	Signature of DFE	Date	Enter name of individual signing as DFE

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Form 5500 (2018)
v. 171027

3a Plan administrator's name and address ☒ Same as Plan Sponsor	3b Administrator's EIN 3c Administrator's telephone number <div style="background-color: #cccccc; height: 40px; width: 100%;"></div>
4 If the name and/or EIN of the plan sponsor or the plan name has changed since the last return/report filed for this plan, enter the plan sponsor's name, EIN, the plan name and the plan number from the last return/report: a Sponsor's name c Plan Name	4b EIN 4d PN
5 Total number of participants at the beginning of the plan year	5 1564
6 Number of participants as of the end of the plan year unless otherwise stated (welfare plans complete only lines 6a(1) , 6a(2) , 6b , 6c , and 6d). a(1) Total number of active participants at the beginning of the plan year a(2) Total number of active participants at the end of the plan year b Retired or separated participants receiving benefits..... c Other retired or separated participants entitled to future benefits d Subtotal. Add lines 6a(2) , 6b , and 6c e Deceased participants whose beneficiaries are receiving or are entitled to receive benefits. f Total. Add lines 6d and 6e g Number of participants with account balances as of the end of the plan year (only defined contribution plans complete this item) h Number of participants who terminated employment during the plan year with accrued benefits that were less than 100% vested	6a(1) 1290 6a(2) 1429 6b 3 6c 348 6d 1780 6e 1 6f 1781 6g 1693 6h 55
7 Enter the total number of employers obligated to contribute to the plan (only multiemployer plans complete this item)	7
8a If the plan provides pension benefits, enter the applicable pension feature codes from the List of Plan Characteristics Codes in the instructions: 3H 2E 2F 2G 2J 2K 2S 2T 3D 3F b If the plan provides welfare benefits, enter the applicable welfare feature codes from the List of Plan Characteristics Codes in the instructions:	
9a Plan funding arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor	9b Plan benefit arrangement (check all that apply) (1) ☐ Insurance (2) ☐ Code section 412(e)(3) insurance contracts (3) ☒ Trust (4) ☐ General assets of the sponsor

10 Check all applicable boxes in 10a and 10b to indicate which schedules are attached, and, where indicated, enter the number attached. (See instructions)

a Pension Schedules

- (1)** ☒ **R** (Retirement Plan Information)
- (2)** ☐ **MB** (Multiemployer Defined Benefit Plan and Certain Money Purchase Plan Actuarial Information) - signed by the plan actuary
- (3)** ☐ **SB** (Single-Employer Defined Benefit Plan Actuarial Information) - signed by the plan actuary

b General Schedules

- (1)** ☒ **H** (Financial Information)
- (2)** ☐ **I** (Financial Information – Small Plan)
- (3)** ☐ **A** (Insurance Information)
- (4)** ☒ **C** (Service Provider Information)
- (5)** ☐ **D** (DFE/Participating Plan Information)
- (6)** ☐ **G** (Financial Transaction Schedules)

Part III Form M-1 Compliance Information (to be completed by welfare benefit plans)

11a If the plan provides welfare benefits, was the plan subject to the Form M-1 filing requirements during the plan year? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

If "Yes" is checked, complete lines 11b and 11c.

11b Is the plan currently in compliance with the Form M-1 filing requirements? (See instructions and 29 CFR 2520.101-2.) ☐ Yes ☐ No

11c Enter the Receipt Confirmation Code for the 2018 Form M-1 annual report. If the plan was not required to file the 2018 Form M-1 annual report, enter the Receipt Confirmation Code for the most recent Form M-1 that was required to be filed under the Form M-1 filing requirements. (Failure to enter a valid Receipt Confirmation Code will subject the Form 5500 filing to rejection as incomplete.)

Receipt Confirmation Code _____

<div>SCHEDULE C</div> <div>(Form 5500)</div> <div>Department of the Treasury Internal Revenue Service</div> <div>Department of Labor Employee Benefits Security Administration</div> <div>Pension Benefit Guaranty Corporation</div>	<div>Service Provider Information</div> <div>This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA).</div> <div>▶ File as an attachment to Form 5500.</div>	OMB No. 1210-0110
		2018
		This Form is Open to Public Inspection.

For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018		
A Name of plan MEDIDATA SOLUTIONS, INC. 401(K) RETIREMENT SAVINGS PLAN	B Three-digit plan number (PN) ▶	001
C Plan sponsor's name as shown on line 2a of Form 5500 MEDIDATA SOLUTIONS, INC.	D Employer Identification Number (EIN) 13-4066508	

Part I	Service Provider Information (see instructions)
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You must complete this Part, in accordance with the instructions, to report the information required for **each person** who received, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of monetary value) in connection with services rendered to the plan or the person's position with the plan during the plan year. If a person received **only** eligible indirect compensation for which the plan received the required disclosures, you are required to answer line 1 but are not required to include that person when completing the remainder of this Part.

1 Information on Persons Receiving Only Eligible Indirect Compensation

a Check "Yes" or "No" to indicate whether you are excluding a person from the remainder of this Part because they received only eligible indirect compensation for which the plan received the required disclosures (see instructions for definitions and conditions)..... ☒ Yes ☐ No

b If you answered line 1a "Yes," enter the name and EIN or address of each person providing the required disclosures for the service providers who received only eligible indirect compensation. Complete as many entries as needed (see instructions).

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL
04-2647786

(b) Enter name and EIN or address of person who provided you disclosures on eligible indirect compensation
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2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

STRATEGIC ADVISORS, INC.

04-2654524

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
27	ADVISOR	49407	Yes ☐ No ☒	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

FIDELITY INVESTMENTS INSTITUTIONAL

04-2647786

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
37 60 64 65	RECORDKEEPER	3675	Yes ☒ No ☐	Yes ☒ No ☐	0	Yes ☒ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

2. Information on Other Service Providers Receiving Direct or Indirect Compensation. Except for those persons for whom you answered "Yes" to line 1a above, complete as many entries as needed to list each person receiving, directly or indirectly, \$5,000 or more in total compensation (i.e., money or anything else of value) in connection with services rendered to the plan or their position with the plan during the plan year. (See instructions).

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

(a) Enter name and EIN or address (see instructions)

(b) Service Code(s)	(c) Relationship to employer, employee organization, or person known to be a party-in-interest	(d) Enter direct compensation paid by the plan. If none, enter -0-.	(e) Did service provider receive indirect compensation? (sources other than plan or plan sponsor)	(f) Did indirect compensation include eligible indirect compensation, for which the plan received the required disclosures?	(g) Enter total indirect compensation received by service provider excluding eligible indirect compensation for which you answered "Yes" to element (f). If none, enter -0-.	(h) Did the service provider give you a formula instead of an amount or estimated amount?
			Yes ☐ No ☐	Yes ☐ No ☐		Yes ☐ No ☐

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
AF GROWTH OF AMER R5 - AMERICAN FU 95-2566717	0.05%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
AM CENT EQ INC I - AMERICAN CENTUR 44-0619208	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
AM CENT HERITAGE I - AMERICAN CENT 44-0619208	0.15%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
BLKRK EQUITY DIV I - BNY MELLON IN P.O. BOX 9793 PROVIDENCE, RI 02940	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
BLKRK GLOBAL ALLOC I - BNY MELLON P.O. BOX 9793 PROVIDENCE, RI 02940	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
CALMOS MKT NEU/INC I - US BANCORP	0.15%	
39-0281260		

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
JPM MIDCAP VALUE L - DST ASSET MAN PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
JPM SMRTRET INC R5 - DST ASSET MAN PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
JPM SMRTRET 2020 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2025 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2030 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2035 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2040 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2045 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2050 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2055 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM SMRTRET 2060 R5 - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
JPM US EQUITY I - DST ASSET MANAGE PO BOX 219432 KANSAS CITY, MO 64121	0.25%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
LS LT GOVT & AGCY Y - DST ASSET MA PO BOX 219432 KANSAS CITY, MO 64121	0.20%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
OAKMARK INTL INV - DST ASSET MANAG PO BOX 219432 KANSAS CITY, MO 64121	0.35%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
OPP DEVELOPING MKT Y - OFI GLOBAL 225 LIBERTY STREET NEW YORK, NY 10281	0.25%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
OPPENHEIMER GLOBAL Y - OFI GLOBAL 225 LIBERTY STREET NEW YORK, NY 10281		0.25%
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
OPPHMR INTL BOND Y - OFI GLOBAL AS 225 LIBERTY STREET NEW YORK, NY 10281		0.25%
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PGIM ST CORP BOND Z - PRUDENTIAL M 22-3703799		0.25%

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PIMCO REAL RTN BD AD - DST ASSET M PO BOX 219432 KANSAS CITY, MO 64121	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PIMCO TOT RETURN ADM - DST ASSET M PO BOX 219432 KANSAS CITY, MO 64121	0.25%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation		(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.
PNR SEL MD CP GR Y - DST ASSET MAN PO BOX 219432 KANSAS CITY, MO 64121	0.35%	

Part I Service Provider Information (continued)

3. If you reported on line 2 receipt of indirect compensation, other than eligible indirect compensation, by a service provider, and the service provider is a fiduciary or provides contract administrator, consulting, custodial, investment advisory, investment management, broker, or recordkeeping services, answer the following questions for (a) each source from whom the service provider received \$1,000 or more in indirect compensation and (b) each source for whom the service provider gave you a formula used to determine the indirect compensation instead of an amount or estimated amount of the indirect compensation. Complete as many entries as needed to report the required information for each source.

(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
FIDELITY INVESTMENTS INSTITUTIONAL	60	0
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
TRP MID CAP VALUE - T. ROWE PRICE 52-2269240	0.15%	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	
(a) Enter service provider name as it appears on line 2	(b) Service Codes (see instructions)	(c) Enter amount of indirect compensation
(d) Enter name and EIN (address) of source of indirect compensation	(e) Describe the indirect compensation, including any formula used to determine the service provider's eligibility for or the amount of the indirect compensation.	

Part II Service Providers Who Fail or Refuse to Provide Information

4 Provide, to the extent possible, the following information for each service provider who failed or refused to provide the information necessary to complete this Schedule.

(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide
(a) Enter name and EIN or address of service provider (see instructions)	(b) Nature of Service Code(s)	(c) Describe the information that the service provider failed or refused to provide

Part III Termination Information on Accountants and Enrolled Actuaries (see instructions)
(complete as many entries as needed)

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

a Name:	b EIN:
c Position:	
d Address:	e Telephone:

Explanation:

SCHEDULE H (Form 5500) <small>Department of the Treasury Internal Revenue Service</small> <small>Department of Labor Employee Benefits Security Administration</small> <small>Pension Benefit Guaranty Corporation</small>	Financial Information This schedule is required to be filed under section 104 of the Employee Retirement Income Security Act of 1974 (ERISA), and section 6058(a) of the Internal Revenue Code (the Code). ► File as an attachment to Form 5500.	OMB No. 1210-0110 2018 This Form is Open to Public Inspection
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For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018		
A Name of plan MEDIDATA SOLUTIONS, INC. 401(K) RETIREMENT SAVINGS PLAN	B Three-digit plan number (PN) ►	001
C Plan sponsor's name as shown on line 2a of Form 5500 MEDIDATA SOLUTIONS, INC.	D Employer Identification Number (EIN) 13-4066508	

Part I	Asset and Liability Statement
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1 Current value of plan assets and liabilities at the beginning and end of the plan year. Combine the value of plan assets held in more than one trust. Report the value of the plan's interest in a commingled fund containing the assets of more than one plan on a line-by-line basis unless the value is reportable on lines 1c(9) through 1c(14). Do not enter the value of that portion of an insurance contract which guarantees, during this plan year, to pay a specific dollar benefit at a future date. **Round off amounts to the nearest dollar.** MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 1b(1), 1b(2), 1c(8), 1g, 1h, and 1i. CCTs, PSAs, and 103-12 IEs also do not complete lines 1d and 1e. See instructions.

Assets		(a) Beginning of Year	(b) End of Year
a Total noninterest-bearing cash	1a	0	0
b Receivables (less allowance for doubtful accounts):			
(1) Employer contributions.....	1b(1)	0	0
(2) Participant contributions	1b(2)	0	0
(3) Other.....	1b(3)	0	0
c General investments:			
(1) Interest-bearing cash (include money market accounts & certificates of deposit).....	1c(1)	4250108	4728683
(2) U.S. Government securities	1c(2)	0	0
(3) Corporate debt instruments (other than employer securities):			
(A) Preferred	1c(3)(A)	0	0
(B) All other.....	1c(3)(B)	0	0
(4) Corporate stocks (other than employer securities):			
(A) Preferred	1c(4)(A)	0	0
(B) Common.....	1c(4)(B)	0	0
(5) Partnership/joint venture interests	1c(5)	0	0
(6) Real estate (other than employer real property).....	1c(6)	0	0
(7) Loans (other than to participants)	1c(7)	0	0
(8) Participant loans.....	1c(8)	1159968	1276873
(9) Value of interest in common/collective trusts	1c(9)	0	0
(10) Value of interest in pooled separate accounts	1c(10)	0	0
(11) Value of interest in master trust investment accounts	1c(11)	0	0
(12) Value of interest in 103-12 investment entities.....	1c(12)	0	0
(13) Value of interest in registered investment companies (e.g., mutual funds).....	1c(13)	97032341	104841813
(14) Value of funds held in insurance company general account (unallocated contracts).....	1c(14)		
(15) Other	1c(15)	0	0

1d Employer-related investments:

		(a) Beginning of Year	(b) End of Year
(1) Employer securities	1d(1)	0	0
(2) Employer real property	1d(2)	0	0
e Buildings and other property used in plan operation	1e	0	0
f Total assets (add all amounts in lines 1a through 1e)	1f	102442417	110847369

Liabilities

g Benefit claims payable	1g	0	0
h Operating payables	1h	0	0
i Acquisition indebtedness	1i	0	0
j Other liabilities	1j	0	0
k Total liabilities (add all amounts in lines 1g through 1j)	1k	0	0

Net Assets

l Net assets (subtract line 1k from line 1f)	1l	102442417	110847369
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Part II Income and Expense Statement

2 Plan income, expenses, and changes in net assets for the year. Include all income and expenses of the plan, including any trust(s) or separately maintained fund(s) and any payments/receipts to/from insurance carriers. Round off amounts to the nearest dollar. MTIAs, CCTs, PSAs, and 103-12 IEs do not complete lines 2a, 2b(1)(E), 2e, 2f, and 2g.

Income

		(a) Amount	(b) Total
a Contributions:			
(1) Received or receivable in cash from: (A) Employers	2a(1)(A)	5213909	
(B) Participants	2a(1)(B)	15370228	
(C) Others (including rollovers)	2a(1)(C)	4347557	
(2) Noncash contributions	2a(2)	0	24931694
(3) Total contributions. Add lines 2a(1)(A) , (B) , (C) , and line 2a(2)	2a(3)		
b Earnings on investments:			
(1) Interest:			
(A) Interest-bearing cash (including money market accounts and certificates of deposit)	2b(1)(A)	72158	
(B) U.S. Government securities	2b(1)(B)	0	
(C) Corporate debt instruments	2b(1)(C)	0	
(D) Loans (other than to participants)	2b(1)(D)	0	
(E) Participant loans	2b(1)(E)	58755	
(F) Other	2b(1)(F)	0	
(G) Total interest. Add lines 2b(1)(A) through (F)	2b(1)(G)		130913
(2) Dividends: (A) Preferred stock	2b(2)(A)	0	6142774
(B) Common stock	2b(2)(B)	0	
(C) Registered investment company shares (e.g. mutual funds)	2b(2)(C)	6142774	
(D) Total dividends. Add lines 2b(2)(A) , (B) , and (C)	2b(2)(D)		6142774
(3) Rents	2b(3)		0
(4) Net gain (loss) on sale of assets: (A) Aggregate proceeds	2b(4)(A)	0	0
(B) Aggregate carrying amount (see instructions)	2b(4)(B)	0	
(C) Subtract line 2b(4)(B) from line 2b(4)(A) and enter result	2b(4)(C)		
(5) Unrealized appreciation (depreciation) of assets: (A) Real estate	2b(5)(A)	0	0
(B) Other	2b(5)(B)	0	
(C) Total unrealized appreciation of assets. Add lines 2b(5)(A) and (B)	2b(5)(C)		

		(a) Amount	(b) Total
(6) Net investment gain (loss) from common/collective trusts	2b(6)		0
(7) Net investment gain (loss) from pooled separate accounts	2b(7)		0
(8) Net investment gain (loss) from master trust investment accounts	2b(8)		0
(9) Net investment gain (loss) from 103-12 investment entities	2b(9)		0
(10) Net investment gain (loss) from registered investment companies (e.g., mutual funds).....	2b(10)		-15441606
c Other income.....	2c		0
d Total income. Add all income amounts in column (b) and enter total	2d		15763775

Expenses

e Benefit payment and payments to provide benefits:			
(1) Directly to participants or beneficiaries, including direct rollovers	2e(1)	7282979	
(2) To insurance carriers for the provision of benefits	2e(2)	0	
(3) Other	2e(3)	0	
(4) Total benefit payments. Add lines 2e(1) through (3).....	2e(4)		7282979
f Corrective distributions (see instructions)	2f		22742
g Certain deemed distributions of participant loans (see instructions)	2g		0
h Interest expense	2h		0
i Administrative expenses: (1) Professional fees.....	2i(1)	0	
(2) Contract administrator fees.....	2i(2)	0	
(3) Investment advisory and management fees.....	2i(3)	49407	
(4) Other	2i(4)	3695	
(5) Total administrative expenses. Add lines 2i(1) through (4).....	2i(5)		53102
j Total expenses. Add all expense amounts in column (b) and enter total	2j		7358823

Net Income and Reconciliation

k Net income (loss). Subtract line 2j from line 2d	2k		8404952
l Transfers of assets:			
(1) To this plan.....	2l(1)		0
(2) From this plan.....	2l(2)		

Part III Accountant's Opinion

3 Complete lines 3a through 3c if the opinion of an independent qualified public accountant is attached to this Form 5500. Complete line 3d if an opinion is not attached.

a The attached opinion of an independent qualified public accountant for this plan is (see instructions):

(1) ☐ Unqualified (2) ☐ Qualified (3) ☒ Disclaimer (4) ☐ Adverse

b Did the accountant perform a limited scope audit pursuant to 29 CFR 2520.103-8 and/or 103-12(d)?

☒ Yes ☐ No

c Enter the name and EIN of the accountant (or accounting firm) below:

(1) Name: BDO USA, LLP

(2) EIN: 13-5381590

d The opinion of an independent qualified public accountant is **not attached** because:

(1) ☐ This form is filed for a CCT, PSA, or MTIA. (2) ☐ It will be attached to the next Form 5500 pursuant to 29 CFR 2520.104-50.

Part IV Compliance Questions

4 CCTs and PSAs do not complete Part IV. MTIAs, 103-12 IEs, and GIAs do not complete lines 4a, 4e, 4f, 4g, 4h, 4k, 4m, 4n, or 5. 103-12 IEs also do not complete lines 4j and 4l. MTIAs also do not complete line 4l.

During the plan year:

a Was there a failure to transmit to the plan any participant contributions within the time period described in 29 CFR 2510.3-102? Continue to answer "Yes" for any prior year failures until fully corrected. (See instructions and DOL's Voluntary Fiduciary Correction Program.).....

b Were any loans by the plan or fixed income obligations due the plan in default as of the close of the plan year or classified during the year as uncollectible? Disregard participant loans secured by participant's account balance. (Attach Schedule G (Form 5500) Part I if "Yes" is checked.)

	Yes	No	Amount
4a	X		2195886
4b		X	

	Yes	No	Amount
c Were any leases to which the plan was a party in default or classified during the year as uncollectible? (Attach Schedule G (Form 5500) Part II if "Yes" is checked.)		X	
4c		X	
d Were there any nonexempt transactions with any party-in-interest? (Do not include transactions reported on line 4a. Attach Schedule G (Form 5500) Part III if "Yes" is checked.).....		X	
4d		X	
e Was this plan covered by a fidelity bond?	X		500000
4e	X		500000
f Did the plan have a loss, whether or not reimbursed by the plan's fidelity bond, that was caused by fraud or dishonesty?		X	
4f		X	
g Did the plan hold any assets whose current value was neither readily determinable on an established market nor set by an independent third party appraiser?.....		X	
4g		X	
h Did the plan receive any noncash contributions whose value was neither readily determinable on an established market nor set by an independent third party appraiser?.....		X	
4h		X	
i Did the plan have assets held for investment? (Attach schedule(s) of assets if "Yes" is checked, and see instructions for format requirements.)	X		
4i	X		
j Were any plan transactions or series of transactions in excess of 5% of the current value of plan assets? (Attach schedule of transactions if "Yes" is checked, and see instructions for format requirements.)		X	
4j		X	
k Were all the plan assets either distributed to participants or beneficiaries, transferred to another plan, or brought under the control of the PBGC?		X	
4k		X	
l Has the plan failed to provide any benefit when due under the plan?.....		X	
4l		X	
m If this is an individual account plan, was there a blackout period? (See instructions and 29 CFR 2520.101-3.)		X	
4m		X	
n If 4m was answered "Yes," check the "Yes" box if you either provided the required notice or one of the exceptions to providing the notice applied under 29 CFR 2520.101-3.			
4n			

5a Has a resolution to terminate the plan been adopted during the plan year or any prior plan year?..... ☐ Yes ☒ No
If "Yes," enter the amount of any plan assets that reverted to the employer this year _____.

5b If, during this plan year, any assets or liabilities were transferred from this plan to another plan(s), identify the plan(s) to which assets or liabilities were transferred. (See instructions.)

5b(1) Name of plan(s)	5b(2) EIN(s)	5b(3) PN(s)

5c If the plan is a defined benefit plan, is it covered under the PBGC insurance program (See ERISA section 4021.)? ☐ Yes ☐ No ☐ Not determined
If "Yes" is checked, enter the My PAA confirmation number from the PBGC premium filing for this plan year _____. (See instructions.)

SCHEDULE R (Form 5500) Department of the Treasury Internal Revenue Service Department of Labor Employee Benefits Security Administration Pension Benefit Guaranty Corporation	Retirement Plan Information This schedule is required to be filed under sections 104 and 4065 of the Employee Retirement Income Security Act of 1974 (ERISA) and section 6058(a) of the Internal Revenue Code (the Code). ▶ File as an attachment to Form 5500.	OMB No. 1210-0110 2018 This Form is Open to Public Inspection.
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For calendar plan year 2018 or fiscal plan year beginning 01/01/2018 and ending 12/31/2018

A Name of plan <u>MEDIDATA SOLUTIONS, INC. 401(K) RETIREMENT SAVINGS PLAN</u>	B Three-digit plan number (PN) ▶ <u>001</u>
C Plan sponsor's name as shown on line 2a of Form 5500 <u>MEDIDATA SOLUTIONS, INC.</u>	D Employer Identification Number (EIN) <u>13-4066508</u>

Part I	Distributions
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All references to distributions relate only to payments of benefits during the plan year.

1 Total value of distributions paid in property other than in cash or the forms of property specified in the instructions	1	
2 Enter the EIN(s) of payor(s) who paid benefits on behalf of the plan to participants or beneficiaries during the year (if more than two, enter EINs of the two payors who paid the greatest dollar amounts of benefits): EIN(s): <u>04-6568107</u>		
Profit-sharing plans, ESOPs, and stock bonus plans, skip line 3.		
3 Number of participants (living or deceased) whose benefits were distributed in a single sum, during the plan year	3	

Part II	Funding Information (If the plan is not subject to the minimum funding requirements of section 412 of the Internal Revenue Code or ERISA section 302, skip this Part.)
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4 Is the plan administrator making an election under Code section 412(d)(2) or ERISA section 302(d)(2)?	☐ Yes	☐ No	☐ N/A
If the plan is a defined benefit plan, go to line 8.			
5 If a waiver of the minimum funding standard for a prior year is being amortized in this plan year, see instructions and enter the date of the ruling letter granting the waiver. Date: Month _____ Day _____ Year _____ If you completed line 5, complete lines 3, 9, and 10 of Schedule MB and do not complete the remainder of this schedule.			
6 a Enter the minimum required contribution for this plan year (include any prior year accumulated funding deficiency not waived)	6a		
b Enter the amount contributed by the employer to the plan for this plan year	6b		
c Subtract the amount in line 6b from the amount in line 6a. Enter the result (enter a minus sign to the left of a negative amount)	6c		
If you completed line 6c, skip lines 8 and 9.			
7 Will the minimum funding amount reported on line 6c be met by the funding deadline?	☐ Yes	☐ No	☐ N/A
8 If a change in actuarial cost method was made for this plan year pursuant to a revenue procedure or other authority providing automatic approval for the change or a class ruling letter, does the plan sponsor or plan administrator agree with the change?	☐ Yes	☐ No	☐ N/A

Part III	Amendments
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9 If this is a defined benefit pension plan, were any amendments adopted during this plan year that increased or decreased the value of benefits? If yes, check the appropriate box. If no, check the "No" box.....	☐ Increase	☐ Decrease	☐ Both	☐ No
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Part IV	ESOPs (see instructions). If this is not a plan described under section 409(a) or 4975(e)(7) of the Internal Revenue Code, skip this Part.
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10 Were unallocated employer securities or proceeds from the sale of unallocated securities used to repay any exempt loan?	☐ Yes	☐ No
11 a Does the ESOP hold any preferred stock?	☐ Yes	☐ No
b If the ESOP has an outstanding exempt loan with the employer as lender, is such loan part of a "back-to-back" loan? (See instructions for definition of "back-to-back" loan.)	☐ Yes	☐ No
12 Does the ESOP hold any stock that is not readily tradable on an established securities market?	☐ Yes	☐ No

For Paperwork Reduction Act Notice, see the Instructions for Form 5500.

Schedule R (Form 5500) 2018
v. 171027

Part V Additional Information for Multiemployer Defined Benefit Pension Plans

13 Enter the following information for each employer that contributed more than 5% of total contributions to the plan during the plan year (measured in dollars). See instructions. *Complete as many entries as needed to report all applicable employers.*

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

a Name of contributing employer

b EIN

c Dollar amount contributed by employer

d Date collective bargaining agreement expires (If employer contributes under more than one collective bargaining agreement, check box ☐ and see instructions regarding required attachment. Otherwise, enter the applicable date.) Month _____ Day _____ Year _____

e Contribution rate information (If more than one rate applies, check this box ☐ and see instructions regarding required attachment. Otherwise, complete lines 13e(1) and 13e(2).)

(1) Contribution rate (in dollars and cents) _____

(2) Base unit measure: ☐ Hourly ☐ Weekly ☐ Unit of production ☐ Other (specify): _____

- 14** Enter the number of participants on whose behalf no contributions were made by an employer as an employer of the participant for:

a The current year

b The plan year immediately preceding the current plan year

c The second preceding plan year

14a**14b****14c**

- 15** Enter the ratio of the number of participants under the plan on whose behalf no employer had an obligation to make an employer contribution during the current plan year to:

a The corresponding number for the plan year immediately preceding the current plan year

b The corresponding number for the second preceding plan year

15a**15b**

- 16** Information with respect to any employers who withdrew from the plan during the preceding plan year:

a Enter the number of employers who withdrew during the preceding plan year

b If line 16a is greater than 0, enter the aggregate amount of withdrawal liability assessed or estimated to be assessed against such withdrawn employers

16a**16b**

- 17** If assets and liabilities from another plan have been transferred to or merged with this plan during the plan year, check box and see instructions regarding supplemental information to be included as an attachment. ☐

Part VI Additional Information for Single-Employer and Multiemployer Defined Benefit Pension Plans

- 18** If any liabilities to participants or their beneficiaries under the plan as of the end of the plan year consist (in whole or in part) of liabilities to such participants and beneficiaries under two or more pension plans as of immediately before such plan year, check box and see instructions regarding supplemental information to be included as an attachment ☐

- 19** If the total number of participants is 1,000 or more, complete lines (a) through (c)

- a** Enter the percentage of plan assets held as:

Stock: _____ % Investment-Grade Debt: _____ % High-Yield Debt: _____ % Real Estate: _____ % Other: _____ %

- b** Provide the average duration of the combined investment-grade and high-yield debt:

☐ 0-3 years ☐ 3-6 years ☐ 6-9 years ☐ 9-12 years ☐ 12-15 years ☐ 15-18 years ☐ 18-21 years ☐ 21 years or more

- c** What duration measure was used to calculate line 19(b)?

☐ Effective duration ☐ Macaulay duration ☐ Modified duration ☐ Other (specify):

**Medidata Solutions, Inc.
401(k) Retirement Savings Plan**

**Financial Statements
and Supplemental Schedules
As of December 31, 2018 and 2017, and
for the Year Ended December 31, 2018**

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Financial Statements and Supplemental Schedules

As of December 31, 2018 and 2017, and for the Year Ended December 31, 2018

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Contents

Independent Auditor's Report	3-4
-------------------------------------	------------

Financial Statements

Statements of Net Assets Available for Benefits as of December 31, 2018 and 2017	5
---	---

Statement of Changes in Net Assets Available for Benefits for the Year Ended December 31, 2018	6
---	---

Notes to Financial Statements	7-13
-------------------------------	------

Supplemental Schedules

Schedule H, Line 4a - Schedule of Delinquent Participant Contributions for the Year Ended December 31, 2018	15
--	----

Schedule H, Line 4i - Schedule of Assets (Held at End of Year) as of December 31, 2018	16
---	----



Independent Auditor's Report

The Plan Administrator
Medidata Solutions, Inc.
401(k) Retirement Savings Plan
New York, New York

Report on the Financial Statements

We were engaged to audit the accompanying financial statements of the Medidata Solutions, Inc. 401(k) Retirement Savings Plan (the Plan), which comprise the statements of net assets available for benefits as of December 31, 2018 and 2017, and the related statement of changes in net assets available for benefits for the year ended December 31, 2018, and the related notes to the financial statements.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on conducting the audits in accordance with auditing standards generally accepted in the United States of America. Because of the matter described in the *Basis for Disclaimer of Opinion* paragraph, however, we were not able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion.

Basis for Disclaimer of Opinion

As permitted by 29 CFR 2520.103-8 of the Department of Labor's (DOL) Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 (ERISA), the Plan administrator instructed us not to perform, and we did not perform, any auditing procedures with respect to the information summarized in Note 3, which was certified by Fidelity Management Trust Company, the Trustee, except for comparing such information with the related information included in the financial statements. We have been informed by the Plan administrator that Fidelity Management Trust Company holds the Plan's investment assets and executes investment transactions. The Plan administrator has obtained a certification from Fidelity Management Trust Company as of December 31, 2018 and 2017, and for the year ended December 31, 2018, that the information provided to the Plan administrator by Fidelity Management Trust Company is complete and accurate.



Disclaimer of Opinion

Because of the significance of the matter described in the *Basis for Disclaimer of Opinion* paragraph, we have not been able to obtain sufficient appropriate audit evidence to provide a basis for an audit opinion. Accordingly, we do not express an opinion on these financial statements.

Other Matter

The supplemental Schedule H, Line 4a - Schedule of Delinquent Contributions for the year ended December 31, 2018 and Schedule H, Line 4i - Schedule of Assets (Held at End of Year) as of December 31, 2018 are required by the DOL's Rules and Regulations for Reporting and Disclosure under ERISA, are presented for the purpose of additional analysis, and are not a required part of the financial statements. Because of the significance of the matter described in the *Basis for Disclaimer of Opinion* paragraph, we do not express an opinion on the supplemental schedules.

Report on Form and Content in Compliance with DOL Rules and Regulations

The form and content of the information included in the financial statements and supplemental schedules, other than that derived from the information certified by Fidelity Management Trust Company, have been audited by us in accordance with auditing standards generally accepted in the United States of America and, in our opinion, are presented in compliance with the DOL's Rules and Regulations for Reporting and Disclosure under ERISA.

BDO USA, LLP

September 5, 2019

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Statements of Net Assets Available for Benefits

<i>December 31,</i>	2018	2017
Assets		
Investments, at fair value	\$ 109,570,496	\$ 101,282,449
Receivables:		
Notes receivable from participants	1,276,873	1,159,968
Employer contributions	469,488	377,497
Total Receivables	1,746,361	1,537,465
Net Assets Available for Benefits	\$ 111,316,857	\$ 102,819,914

See accompanying notes to financial statements.

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Statement of Changes in Net Assets Available for Benefits

Year ended December 31, 2018

Additions

Investment income (loss):

Net depreciation in fair value of investments \$ (15,439,944)

Interest and dividends 6,213,208

Total Investment Loss (9,226,736)

Interest income on notes receivable from participants 58,955

Contributions:

Participant 15,370,228

Rollovers 4,347,558

Employer 5,305,900

Total Contributions 25,023,686

Total Additions 15,855,905

Deductions

Benefits paid to participants and beneficiaries 7,305,721

Administrative expenses 53,241

Total Deductions 7,358,962

Net Increase in Net Assets Available for Benefits 8,496,943

Net Assets Available for Benefits, beginning of year 102,819,914

Net Assets Available for Benefits, end of year \$ 111,316,857

See accompanying notes to financial statements.

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

1. Description of the Plan

The following description of the Medidata Solutions, Inc. 401(k) Retirement Savings Plan (the Plan) provides only general information. Participants should refer to the Plan document for a complete description of the Plan's provisions.

General

The Plan is a defined contribution plan covering substantially all employees of Medidata Solutions, Inc. (the Company or the Employer). On February 17, 2017, the Company acquired CHITA Inc. (CHITA). CHITA's employees became eligible to make contributions to the Plan on April 1, 2017. On April 18, 2017, the Company acquired Mytrus, Incorporated (Mytrus). The Company merged Mytrus's 401(k) plan into the Plan effective October 2, 2017. The Plan is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (ERISA).

Contributions

Each year, participants may contribute up to 80% of pretax annual compensation, as defined in the Plan document. Participants who have attained age 50 before the end of the Plan year are eligible to make catch-up contributions. Participants also may contribute amounts representing distributions from other qualified defined benefit or defined contribution plans (rollovers). Participants direct the investment of their contributions into various investment options offered by the Plan. The Plan includes an auto-enrollment provision whereby all newly eligible employees are automatically enrolled in the Plan unless they affirmatively elect not to participate in the Plan. Automatically enrolled participants have their initial deferral rate set at 2% of eligible compensation and their contributions invested in a designated balanced fund until changed by the participant. The Company contributes 50% of the first 6% of base compensation that a participant contributes to the Plan. The matching Employer contribution is invested as directed by the participant.

Contributions Receivable

Contributions that are pending transfer to Fidelity Management Trust Company (Fidelity) are recorded as contributions receivable to the Plan in the statements of net assets available for benefits.

Participant Accounts

Each participant's account is credited with the participant's contributions and the Employer's matching contributions, as well as allocations of Plan earnings and losses. Participant accounts are charged with an allocation of administrative expenses. Allocations are based on participant earnings, account balances, or specific participant transactions, as defined by the Plan documents. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Investment Options

Investments are participant directed, and the Company controls and manages the operation and administration of the Plan. Fidelity is the trustee of the Plan.

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

Vesting

Participants are 100% vested in their employee pre-tax contributions, rollover contributions, employee after-tax Roth contributions, and any earnings thereon. Participants hired prior to January 1, 2017 are also 100% vested in Employer matching contributions and earnings thereon.

Employer matching contributions and earnings thereon for participants hired January 1, 2017 and later vest in accordance with the following schedule:

<i>Years of service</i>	<i>Vesting Percentage (%)</i>
Less than 1 year	-
At least 1 year but less than 2 years	33
At least 2 years but less than 3 years	66
At least 3 years or more	100

Non-elective Employer contributions and earnings thereon for all participants vest in accordance with the following schedule:

<i>Years of service</i>	<i>Vesting Percentage (%)</i>
Less than 2 years	-
At least 2 years but less than 3 years	20
At least 3 years but less than 4 years	50
At least 4 years or more	100

Forfeiture balances are first used to reduce plan administrative expenses and then employer contributions. Forfeited nonvested contributions were used to reduce the Plan's administrative expenses in the amounts of \$43,186 and \$9,898 during the years ended December 31, 2018 and 2017, respectively. There was no balance in the forfeiture account at December 31, 2018 and 2017.

Loans to Participants

Participants may borrow from their vested accounts a minimum of \$500 up to a maximum equal to the lesser of \$50,000 or 50% of their vested account balance. Loan terms range from one to five years, or up to 15 years for the purchase of a primary residence. The loans are secured by the participant's account balance and bear interest at the rate in effect in the month the loan originated. The interest rate is a reasonable interest rate as determined by the Plan administrator based on the prevailing interest rates charged by persons in the business of lending money for loans that would be made under similar circumstances. Principal and interest are repaid ratably through payroll deductions.

Payments of Benefits

A participant is eligible to receive a distribution of their vested account balance under any of the following circumstances: (a) retirement, (b) termination of employment, (c) disability, or (d) death. A participant is also eligible for in-service withdrawals. Types of in-service withdrawals available under the Plan are: (a) withdrawals after age 59 ½, (b) withdrawals of rollover contributions, and

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

(c) hardship withdrawals. A participant receives the value of their vested account balance in the form of a single lump-sum payment or direct rollover. The Plan allows for installment distributions if participant vested account balances exceed \$5,000.

2. Summary of Accounting Policies

Basis of Accounting

The financial statements of the Plan are prepared under the accrual method of accounting, in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP).

Use of Estimates

The preparation of the Plan's financial statements in conformity with U.S. GAAP requires Plan management to make estimates and assumptions that affect reported amounts of assets, liabilities, and changes therein, and the disclosures of contingent assets and liabilities. These estimates include the fair value of investments. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

The Plan's investments are reported at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Plan's Retirement Plan Committee determines the Plan's valuation policies utilizing information provided by the investment advisor. See Note 4 for discussion of fair value measurements.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded on an accrual basis. Dividends are recorded on the ex-dividend date. Net (depreciation) appreciation includes the Plan's gains or losses on those investments purchased and sold as well as held during the year.

Notes Receivable from Participants

Notes receivable from participants are measured at their unpaid principal balance plus accrued unpaid interest. During 2018, distributions totaling \$2,451 were used to satisfy Plan loan defaults, which have been recorded as benefits paid to participants and beneficiaries in the accompanying statement of changes in net assets available for benefits. No allowance for credit losses has been recorded as of December 31, 2018 and 2017.

Payment of Benefits

Benefit payments to participants are recorded upon distribution.

Administrative Expenses

Certain expenses of maintaining the Plan are paid by the Plan, unless otherwise paid by the Employer. Expenses that are paid by the Employer are excluded from these financial statements. Investment-related expenses are included in net (depreciation) appreciation in fair value of investments.

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

3. Information Certified by Fidelity

The Plan administrator has elected the method of compliance as permitted by 29 CFR 2520.103-8 of the Department of Labor's (DOL) Rules and Regulations for Reporting and Disclosure under ERISA. As permitted under such election, the Plan administrator instructed the Plan's independent auditors not to perform, and they did not perform, auditing procedures with respect to this information, except for comparing such information certified by Fidelity to the related information included in the financial statements and supplemental schedules. Investments, at fair value, and notes receivable from participants at December 31, 2018 and 2017, and interest and dividends, net depreciation in fair value of investments, and interest income on notes receivable from participants for the year ended December 31, 2018, which is disclosed in the accompanying financial statements and supplemental schedules, was obtained or derived from information supplied to the Plan administrator and certified as complete and accurate by Fidelity.

4. Fair Value Measurements

U.S. GAAP establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that inputs that are most observable be used when available. The input hierarchy is broken down into three levels based on the degree to which the exit price is independently observable or determinable, as follows:

Level 1 - Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that the Plan has the ability to access.

Level 2 - Inputs to the valuation methodology included:

- Quoted prices for similar assets or liabilities in active markets
- Quoted prices for identical or similar assets or liabilities in inactive markets
- Inputs other than quoted prices that are observable for the asset or liability
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

Level 3 - Inputs to the valuation methodology are unobservable and significant to the overall fair value measurement.

The following is a description of the valuation methodologies used for these items, as well as the general classification of such items pursuant to the fair value hierarchy. There have been no changes to the methodologies used at December 31, 2018 and 2017.

Interest-Bearing Cash

The Plan invests in a government money market fund, which is valued based on the Plan's interests in the net asset value (NAV) of its underlying assets reported by Fidelity.

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

Mutual Funds

The Plan has investments in mutual funds. Investments in mutual funds accounts are valued at NAV of shares held by the Plan at year end. The mutual funds are traded at quoted prices through the National Securities Clearing Corporation. These investments are priced using nationally recognized pricing serves based on observable market data.

The preceding methods described may produce a fair value calculation that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables present the level within the fair value hierarchy at which the Plan's financial assets are measured at fair value.

December 31, 2018

	Assets at Fair Value	
	Level 1	Total
Interest-bearing cash money market fund	\$ 4,728,683	\$ 4,728,683
Mutual funds	104,841,813	104,841,813
Total Investments, at fair value	\$ 109,570,496	\$ 109,570,496

December 31, 2017

	Assets at Fair Value	
	Level 1	Total
Interest-bearing cash money market fund	\$ 4,250,108	\$ 4,250,108
Mutual funds	97,032,341	97,032,341
Total Investments, at fair value	\$ 101,282,449	\$ 101,282,449

5. Related Party and Party-in-Interest Transactions

Certain Plan investments are managed by Fidelity. Any purchases and sales of these funds are performed in the open market at fair value and qualify as party-in-interest transactions. Such transactions, while considered party-in-interest transactions under ERISA regulations, are permitted under the provisions of the Plan and are specifically exempt from the prohibition of party-in-interest transactions under ERISA. Notes receivable from participants also qualify as party-in-interest transactions.

During the Plan year ended December 31, 2018, employee withholdings in the amount of \$2,195,886 were not remitted within the appropriate time period by the Plan Sponsor. These transactions constitute prohibited transactions, as defined by ERISA. The Plan Sponsor has corrected the related participant accounts.

6. Plan Termination

Although it has not expressed any intention to do so, the Company has the right under the Plan to

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

discontinue its contributions at any time and to terminate the Plan, subject to the provisions of ERISA. In the event of Plan termination, participants will become fully vested in their Employer contributions.

7. Risks and Uncertainties

The Plan provides for various investment options that, in general, are exposed to various risks, such as interest rate, credit and overall market volatility risks. Further, due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the value of such securities will occur in the near term, and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits.

As of December 31, 2018 and 2017, two investments comprised 22% and 21% of total net assets available for benefits, respectively.

8. Tax Status

The Plan has adopted the Fidelity standardized 401(k) prototype plan, which has received an updated favorable opinion letter from the Internal Revenue Service (IRS) dated March 31, 2014. The Plan administrator believes the Plan is designed and is currently being operated in accordance with, and continues to qualify under the applicable requirements of the Internal Revenue Code, and that the Plan is exempt from federal income taxes.

U.S. GAAP requires Plan management to evaluate tax positions taken by the Plan and recognize a tax liability if the Plan has taken an uncertain position that more likely than not would not be sustained upon examination by the IRS. The Plan is subject to routine audits by taxing jurisdictions; however, there are no audits currently in progress for any tax years.

9. Reconciliation of Financial Statements to Form 5500

The following is a reconciliation of the net assets available for benefits per the financial statements to net assets as reported in Form 5500:

<i>December 31,</i>	2018	2017
Net assets available for benefits per the financial statements	\$ 111,316,857	\$ 102,819,914
Less: employer contributions receivable	(469,488)	(377,497)
Net Assets Available for Benefits per Form 5500	\$ 110,847,369	\$ 102,442,417

The following is a reconciliation of the net increase in net assets per the financial statements for the year ended December 31, 2018 to Form 5500:

<i>Year ended December 31, 2018</i>	
Net increase in net assets available for benefits per the financial statements	\$ 8,496,943
Less: current-year employer contributions receivable	(469,488)
Plus: prior-year employer contributions receivable	377,497
Net Increase in Net Assets Available for Benefits per Form 5500	\$ 8,404,952

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Notes to Financial Statements

10. Subsequent Events

For purposes of determining the effects of subsequent events on these financial statements, management has evaluated events subsequent from the date of the statement of net assets available for benefits through September 5, 2019, the date on which the financial statements were available to be issued. During this period, no subsequent events arose that would require disclosure, except for the following:

During 2018, the Employer acquired SHYFT Analytics. Effective January 1, 2019, employees of SHYFT Analytics will be eligible to participate in the Plan.

On June 12, 2019, the Company announced that it will be acquired by Dassault Systèmes, a French software company. This merger is expected to close in the third or fourth quarter of 2019.

Supplemental Schedules

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Schedule H, Line 4a - Schedule of Delinquent Participant Contributions
 EIN: 13-4066508 Plan No.: 001

Year ended December 31, 2018

	Participant Contributions Transferred Late to Plan	Total That Constitutes Nonexempt Prohibited Transactions			Total Fully Corrected Under VFCP* and PTE 2002-51
		Contributions Not Corrected	Contributions Corrected Outside VFCP*	Contributions Pending Correction in VFCP*	
Check here if late participant loan repayments are included: ☒					
2018	\$ 2,195,886	\$ -	\$ 2,195,886	\$ -	\$ -

* Voluntary Fiduciary Correction Program (DOL)

Medidata Solutions, Inc. 401(k) Retirement Savings Plan

Schedule H, Line 4i - Schedule of Assets (Held at End of Year)

EIN: 13-4066508

Plan No.: 001

December 31, 2018

(a)	(b)	(c)	(d)	(e)
	Identity of Issue, Borrower, Lessor or Similar Party	Description of Investment, Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	Cost**	Current Value
	Interest-Bearing Cash			
*	Fidelity Investments	Money Market Trust Retirement Government Money Market II	\$	4,728,683
	Mutual Funds			
	American Funds	The Growth Fund of America Class R-5		3,743,859
	American Century Investments	American Century Equity Income I		2,988,866
	BlackRock Global Allocation Fund, Inc.	Equity Dividend Fund Investor A Shares		2,407,569
	BlackRock Global Allocation Fund, Inc.	Global Allocation Fund, Inc.		1,137,245
	BlackRock Global Allocation Fund, Inc.	High Yield Bond K		836,660
	Calamos	Market Neutral Income Fund		259,212
*	Fidelity Investments	Fidelity Puritan Fund Class K		2,540,307
	J.P. Morgan Asset Management	Mid-Cap Value Fund Class L		3,108,113
	J.P. Morgan Asset Management	SmartRetirement Funds 2020 I		954,037
	J.P. Morgan Asset Management	SmartRetirement Funds 2025 I		1,179,225
	J.P. Morgan Asset Management	SmartRetirement Funds 2030 I		5,557,471
	J.P. Morgan Asset Management	SmartRetirement Funds 2035 I		3,343,826
	J.P. Morgan Asset Management	SmartRetirement Funds 2040 I		9,874,147
	J.P. Morgan Asset Management	SmartRetirement Funds 2045 I		4,342,732
	J.P. Morgan Asset Management	SmartRetirement Funds 2050 I		3,743,950
	J.P. Morgan Asset Management	SmartRetirement Funds 2055 I		2,251,286
	J.P. Morgan Asset Management	SmartRetirement Funds 2060 R5		423,333
	J.P. Morgan Asset Management	SmartRetirement Funds INCM I		350,899
	J.P. Morgan Asset Management	US Equity Select		5,188,929
	Natixis Global Asset Management	Loomis Sayles Limited Term Government and Agency Fund		371,752
	Oakmark International Fund	Oakmark International Fund Investor Class		1,231,186
	Oppenheimer Funds	Developing Markets Fund Class Y		2,089,548
	Oppenheimer Funds	Global Fund Class Y		2,464,623
	Oppenheimer Funds	International Bond Fund Class Y		692,031
	PIMCO	Real Return Fund Administrative Class		1,148,776
	PIMCO	Total Return ADM Fund		2,225,317
	Pioneer Investments	Select Mid-Cap Growth Y		1,717,333
	Prudential Investments	Short-Term Corporate Bond Z		664,016
	T. Rowe Price	Mid-Cap Value Fund		5,695,435
	T. Rowe Price	QM U.S. Small-Cap Growth Equity Fund		2,374,924
	The Vanguard Group	Developed Markets Idx Admiral Fund		3,451,431
	The Vanguard Group	Intermediate-Term Bond Index Fund Admiral Shares		2,020,728
	The Vanguard Group	Mid-Cap Index Fund Admiral Shares		3,285,960
	The Vanguard Group	Small-Cap Index Fund Admiral Shares		3,056,602
	The Vanguard Group	Small Cap Value Index Admiral		3,773,969
	The Vanguard Group	Vanguard Institutional Index Fund		14,346,516
	Total Mutual Funds			104,841,813
	Total Investments			-
*	Notes Receivable from Participants	Interest rates ranging from 4.25% to 6.25%, with maturity dates through 2033	-	1,276,873
	Total		\$	110,847,369

* Represents a party-in-interest, as defined by ERISA.

**The cost of participant-directed investments is not required to be disclosed.

EBP AUDIT WRAP-UP

December 31, 2018



The following communication was prepared as part of our audit, has consequential limitations, and is intended solely for the information and use of those charged with governance (e.g., Board of Directors and Audit Committee) and, if appropriate, management of the Plan and is not intended and should not be used by anyone other than these specified parties.

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622 Third Ave
Suite 3100
New York, NY 10017

September 5, 2019

To the Plan Administrator of the
Medidata Solutions, Inc. 401(k) Retirement Savings Plan
New York, New York

Professional standards require us to communicate with you regarding matters related to the plan audit that are, in our professional judgment, significant and relevant to your responsibilities in overseeing the financial reporting process. On May 29, 2019 we presented an overview of our plan for the audit of the financial statements of Medidata Solutions, Inc. 401(k) Retirement Savings Plan (the Plan) as of and for the year ended December 31, 2018, including a summary of our overall objectives for the audit, and the nature, scope, and timing of the planned audit work.

This communication is intended to elaborate on the significant findings from our audit, including our views on the qualitative aspects of the Plan's accounting practices and policies, Plan management's judgments and estimates, financial statement disclosures, and other required matters.

We are pleased to be of service to the Plan and discussing our audit findings, as well as other matters that may be of interest to you, and to answer any questions you might have.

Respectfully,

BDO USA, LLP

BDO USA, LLP

Discussion Outline

	Page
Status of Our Audit	3
Results of Our Audit	4
Internal Control Over Financial Reporting	5
Other Required Communications	6
Independence Communication	7
Significant Regulatory, Accounting, Auditing, and Reporting Discussion Matters	8

Status of Our Audit

We have completed our audit of the financial statements, including procedures applied to the supplemental schedules, of the Medidata Solutions, Inc. 401(k) Retirement Savings Plan

(the Plan) as of and for the year ended December 31, 2018. Our audit was conducted in accordance with auditing standards generally accepted in the United States of America. This audit of the financial statements does not relieve Plan management or those charged with governance of their responsibilities. The term “those charged with governance” encompasses the term Board of Directors or Audit Committee or other formally designated body that has financial oversight responsibilities.

- ▶ The objective of our financial statement audit was to obtain reasonable - not absolute - assurance about whether the financial statements are free from material misstatements.
- ▶ The scope of the work performed was substantially the same as that described to you in our earlier Audit Planning communications.
- ▶ As permitted by Regulation 2520.103-8 of the Department of Labor’s (DOL) Rules and Regulations for Reporting and Disclosure under ERISA and as instructed by you, we have not performed auditing procedures with respect to information prepared and certified to by Fidelity Management Trust Company (“Fidelity”), the trustee of the Plan, other than comparing that information with the related information included in the financial statements and supplemental schedules. Because of the significance of the information that we did not audit, we did not express an opinion on the financial statements and supplemental schedules as a whole. As such, the form and content of the information included in the financial statements and supplemental schedule, other than that derived from the information certified to by Fidelity, was audited by us in accordance with auditing standards generally accepted in the United States of America, and was subjected to tests of your accounting records and other procedures as we considered necessary to enable us to express an opinion as to whether they are presented in compliance with the DOL’s Rules and Regulations for Reporting and Disclosure under ERISA.
- ▶ Our responsibility for other information in documents containing the Plan’s audited financial statements (e.g., Form 5500) does not extend beyond the financial information identified in our audit report, and we are not required to perform procedures to corroborate such other information. However, in accordance with professional standards, we have read all information included in the Plan’s Form 5500 and consider whether such information, or the manner of its presentation, was materially inconsistent with its presentation in the financial statements. Our responsibility also includes calling to management’s attention any information that we believe is a material misstatement of fact. We have not identified any material inconsistencies or concluded there are any material misstatements of facts in the other information.
- ▶ All records and information requested were freely available for our inspection.
- ▶ Plan management’s cooperation was excellent. We received full access to all information that we requested while performing our audit, and we acknowledge the full cooperation extended to us by all levels of Plan personnel throughout the course of our work.

Results of Our Audit

ACCOUNTING PRACTICES, POLICIES, AND ESTIMATES

The following summarizes the more significant required communications related to our audit concerning the Plan's accounting practices, policies, and estimates:

The Plan's significant accounting practices and policies are those included in the notes to the financial statements. These accounting practices and policies are appropriate, comply with generally accepted accounting principles and industry practice, were consistently applied, and are adequately described within the notes to the financial statements.

- ▶ There were no changes in significant accounting policies and practices during 2018.

Significant estimates are those that require management's most difficult, subjective, or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain. The Company's significant accounting estimates, including a description of management's processes and significant assumptions used in development of the estimates, are disclosed in Note 2 of the financial statements.

Significant Accounting Estimates Include:

Investments and the Related Investment Income (Loss)

- ▶ Plan management did not make any significant changes to the processes or significant assumptions used to develop the critical accounting estimates in 2018.

The methods used to account for significant or unusual transactions, and related disclosures, are considered appropriate.

CORRECTED AND UNCORRECTED MISSTATEMENTS

There were no corrected misstatements, other than those that were clearly trivial, related to accounts and/or disclosures that we brought to the attention of Plan management. An employer contribution receivable was recorded in an amount of \$469,488 as part of cash to accrual basis adjustments. This is consistent treatment with prior years.

There were no uncorrected misstatements, other than those that were clearly trivial, related to accounts and/or disclosures that we presented to Plan management.

QUALITY OF THE PLAN'S FINANCIAL REPORTING

A discussion was held regarding the quality of the Plan's financial reporting, which included the following:

- ▶ Qualitative aspects of significant accounting policies and practices
- ▶ Our conclusions regarding significant accounting estimates
- ▶ Significant unusual transactions
- ▶ Financial statement presentation

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the Plan's internal control over financial reporting (internal control) as a basis for designing our auditing procedures for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control. Accordingly, we do not express an opinion on the effectiveness of the Plan's internal control.

Our consideration of internal control was for the limited purpose described above and was not designed to identify all deficiencies in internal control that might be significant deficiencies or material weaknesses.

We are required to communicate, in writing and in a timely manner, to those charged with governance all material weaknesses and significant deficiencies that have been identified in the Plan's internal control over financial reporting. The definitions of control deficiency, significant deficiency and material weakness follow:

Category	Definition
Deficiency in Internal Control	A deficiency in internal control over financial reporting exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent or detect misstatements on a timely basis.
Significant Deficiency	A deficiency or a combination of deficiencies in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.
Material Weakness	A deficiency or a combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the financial statements will not be prevented or detected on a timely basis.

In conjunction with our audit of the Plan financial statements, we noted no material weaknesses.

Other Required Communications

Following is a summary of those required items, along with specific discussion points as they pertain to the Plan.

Requirement	Discussion Points
Significant changes to planned audit strategy or significant risks initially identified	There were no significant changes to the planned audit strategy or significant risks initially identified and previously communicated to those charged with governance as part of our Audit Planning communications.
Obtain information from those charged with governance relevant to the audit	There were no matters noted relevant to the audit, including, but not limited to: violations or possible violations of laws or regulations; risk of material misstatements, including fraud risks; or tips or complaints regarding the Plan's financial reporting that we were made aware of as a result of our inquiry of those charged with governance.
Nature and extent of specialized skills or knowledge needed related to significant risks	There were no specialized skills or knowledge needed, outside of the core engagement team, to perform the planned audit procedures or evaluate audit results related to significant risks.
Consultations with other accountants	We are not aware of any consultations about accounting or auditing matters between management and other independent public accountants. Nor are we aware of opinions obtained by management from other independent public accountants on the application of generally accepted accounting principles.
Significant findings and issues arising during the audit in connection with the Plan's related parties	We have evaluated whether the identified related party relationships and transactions have been appropriately identified, accounted for, and disclosed and whether the effects of the related party relationships and transactions, based on the audit evidence obtained, prevent the financial statements from achieving fair presentation.
Departure from auditor's standard report	We expect to modify the opinion in our report due to the following: Disclaimer for limited scope audit
Disagreements with Plan management	There were no disagreements with Plan management about matters, whether or not satisfactorily resolved, that individually or in aggregate could be significant to the Plan's financial statements or to our auditor's report.
Significant difficulties encountered during the audit	There were no significant difficulties encountered during the audit.
Other matters significant to the oversight of the Plan's financial reporting process, including complaints or concerns regarding accounting or auditing matters	There are no other matters that we consider significant to the oversight of the Plan's financial reporting process that have not been previously communicated.
Representations requested from management	Please refer to the management representation letter.

Independence Communication

Our engagement letter to you dated January 28, 2019 describes our responsibilities in accordance with professional standards and certain regulatory authorities with regard to independence and the performance of our services. This letter also stipulates the responsibilities of the Plan with respect to independence as agreed to by the Plan. Please refer to that letter for further information.

Significant Regulatory, Accounting, Auditing and Reporting Discussion Matters

REGULATORY

LIMITED EXPANSION OF IRS DETERMINATION LETTER PROGRAM

[Revenue Procedure \(Rev Proc\) 2019-20](#) announced a limited expansion of the determination letter program for Individually Designed Plans (IDP). It also provides for a limited extension of the remedial amendment period under specified circumstances and for special sanction structures that apply to certain plan document failures discovered by the IRS during the review of a plan submitted for a determination letter pursuant to this revenue procedure. Under the expansion, IRS will accept determination letter applications from individually designed hybrid plans (like cash balance plans) from September 1, 2019 to August 31, 2020, and from merged IDPs on an on-going basis (so long as the applicable deadlines are met).

IRS REQUIRED AMENDMENT LISTS (RAL)

The IRS publishes an annual RAL for IDPs containing two parts. Part A addresses changes in qualification requirements that generally would require an amendment to most plans. Part B addresses changes in qualification requirements that may not require an amendment for most plans. To retain tax-qualified status, IDPs must be amended for each item on the RAL, as applicable, by the end of the second calendar year following the year the RAL is published.

In December 2018, IRS Notice 2018-91 announced that there are no changes in qualification requirements on the 2018 RAL. Changes included on the 2017 RAL (announced by IRS Notice 2017-72 in December 2017) are due by December 31, 2019. Those changes potentially apply to cash balance/hybrid plan (Part A only) and certain defined benefit plans (both Parts A and B).

IRS OPERATIONAL COMPLIANCE (OC) LISTS

On March 29, 2019, IRS updated its OC List (which is only available on the [IRS website](#)). The OC List helps plan sponsors achieve operational compliance by identifying changes in qualification requirements effective in 2016, 2017, 2018 and 2019. The OC List identifies matters that may involve either mandatory or discretionary plan amendments depending on the particular plan and references other significant guidance that may affect daily plan operations. It doesn't include annual, monthly, or other periodic changes that routinely occur (such as cost-of-living increases, spot segment rates, and applicable mortality tables).

EXPANDED IRS SELF-CORRECTION PROGRAM

Rev Proc 2019-19 updated the Employee Plans Compliance Resolution System (EPCRS) for sponsors of retirement plans that are intended to satisfy certain requirements of the Internal Revenue Code (IRC). It expanded the Self-Correction Program, effective April 19, 2019, to make it easier to fix certain plan documents and operational failures, including plan loans, without having to file a Voluntary Correction Program submission to the IRS. It modifies and supersedes Rev Proc 2018-52. Note that all EPCRS submissions made on or after April 1, 2019, must be filed electronically and user fees must be paid through [pay.gov](#).

TAX CUTS AND JOB ACT (TCJA)

The TCJA extends the time for plan loan offsets for participants who take a loan from a qualified plans and then terminate employment or for participants who have an outstanding loan when the plan is terminated. Effective for tax years beginning after December 31 2017, such participants can make a tax-free "indirect rollover" of a plan loan offset up until the extended due date of their personal federal income tax return (Form 1040) for the year in which the loan offset occurred.

BIPARTISAN BUDGET ACT OF 2018 (BBA)

The BBA removed certain constraints on hardship withdrawals taken by plan participants, effective for plan years beginning after December 31, 2018. These changes include eliminating the requirement that a participant must take a plan loan before applying for a hardship withdrawal; eliminating the six-month prohibition on participant contributions after taking a hardship withdrawal; and permitting hardship withdrawals to be taken from more sources, including earnings on elective deferrals and from qualified non-

Significant Regulatory, Accounting, Auditing and Reporting Discussion Matters

elective contributions, qualified matching contributions and safe harbor contributions. An amendment will be required to update plan documents for these provisions.

DISASTER RELIEF SPECIAL RULES

These rules allow for easier access to retirement funds to recover from 2017 Hurricanes Harvey, Irma and Maria and the 2017 California wildfires (but such relief has not yet been enacted for 2018 hurricanes and wildfires). Under the rules, participants may include qualified hurricane/wildfire distributions in their income and can repay distributions to the plan over a three-year period. The special rules waive the 10% additional tax on certain early distributions and expand the availability of plan loans up to \$100,000 and extends the loan repayment period by one additional year. Plan sponsors have until the last day of the first plan year beginning on or after 2019 to amend their plans to provide either or both distribution options to participants. When amendments are made, they must be retroactive.

MISSING PARTICIPANTS

IRS employee plan examiners will not challenge a 401(k) plan (as of Oct. 19, 2017) or 403(b) plan (as of Feb. 18, 2018) for its failure to make required minimum distributions (RMDs) to missing persons if the plan has taken ALL of the following steps: 1) searched plan and related plan, sponsor, and publicly-available records or directories for alternative contact information; 2) used either a commercial locator service, a credit reporting agency or a propriety internet search tool for locating individuals; and 3) attempted contact via U.S. Postal Service certified mail to the last known mailing address and through appropriate means for any address or contact information (including email addresses and telephone numbers).

The DOL continues to investigate retirement plans' failures to make benefit payments to missing participants, with a particular focus on defined benefit plans. Also, the Pension Benefit Guaranty Corporation (PBGC) has expanded its missing participant program to allow terminated defined contribution plans to voluntarily remit plan benefits for missing participants to the PBGC.

ACCOUNTING

ASU 2018-13, CHANGES TO THE DISCLOSURE REQUIREMENTS FOR FAIR VALUE MEASUREMENT

This ASU modifies the disclosure requirements for recurring and nonrecurring fair value measurements by removing, amending and adding certain disclosures, as noted below:

Removed:

- ▶ Amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy.
- ▶ Policy for timing of transfers between levels.
- ▶ Valuation processes for Level 3 fair value measurements.
- ▶ For nonpublic entities (plans not subject to filing SEC Form 11-K), changes in the unrealized gains and losses for the period included in earnings for recurring Level 3 fair value measurements.

Amended:

- ▶ In lieu of a rollforward for Level 3 fair value measurements, a nonpublic entity is required to disclose purchases and issues along with transfers into and out of Level 3 of the fair value hierarchy.
- ▶ For investments in certain entities that calculate Net Asset Value (NAV), an entity is required to disclose the timing of liquidation of an investee's assets and the date when restrictions from redemption might lapse *only* if the investee has communicated the timing to the reporting entity or announced the timing publicly (if the timing is unknown, this should also be disclosed).

Significant Regulatory, Accounting, Auditing and Reporting Discussion Matters

Clarifies that the measurement uncertainty disclosure should include information about any uncertainties in measurement as of the reporting date.

The amendments in this ASU are effective for reporting periods beginning after December 15, 2019. Early adoption is permitted and an entity may early adopt only the removed and modified disclosure requirements, while delaying adoption of the additional disclosures until their effective date.

ASU 2018-09, CODIFICATION IMPROVEMENTS

The amendments in this ASU that impact plan audits are as follows:

- ▶ Amends the example in Subtopic 962-325 to remove the stable value common collective trust as an example of NAV per share practical expedient to avoid the interpretation that such an investment would never have a readily determinable fair value (RDFV). It clarifies that an entity should evaluate whether an RDFV exists or whether its investments qualify for the NAV per share practical expedient.
- ▶ Moved property, plant, and equipment guidance from Subtopic 962-205 to 962-360.
- ▶ Replaces the indefinite deferral with a disclosure exemption for quantitative disclosures about significant unobservable inputs related to level 3 as noted in 820-10-50-2(bbb)(2). Plans, other than those subject to the U.S. Securities and Exchange Commission's (SEC) filing requirements, are not required to provide this disclosure for investments held by a plan in the sponsor's own nonpublic equity securities, including equity securities of the sponsor's nonpublic affiliated entities.

AUDITING

NEW AUDITING STANDARDS BOARD (ASB) EBP REPORTING STANDARD

The Statement on Auditing Standards (SAS), *Forming an Opinion and Reporting on Financial Statements of Employee Benefit Plans Subject to ERISA*, was voted final in July 2018 by the ASB, pending certain conforming amendments that were approved by the ASB in May 2019. The SAS will be effective for audits of plans subject to ERISA (including single employer, multiple employer, and multiemployer plans) for periods ending on or after December 15, 2020. Early adoption is not permitted.

It specifically addresses requirements for engagement acceptance; audit risk assessment and response, including the auditor's consideration of relevant plan provisions; communications of reportable findings with those charged with governance; auditor's responsibilities related to ERISA-required supplemental schedules and Form 5500; and the form and content of the related auditor's report.

The SAS also impacts the type of audit that was previously referred to as a "limited scope audit," which the SAS now refers to as an "ERISA section 103(a)(3)(C) audit." It establishes a new form of report about the scope and nature of the audit, which describes the procedures performed on certified investment information.