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

FORM 11-K

FOR ANNUAL REPORTS OF EMPLOYEE STOCK PURCHASE, SAVINGS AND SIMILAR PLANS PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

(Mark One)

☒ **ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2016

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from __________ to __________

Commission file number: 000-20827

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

CASS INFORMATION SYSTEMS, INC. 401(K) PLAN

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

CASS INFORMATION SYSTEMS, INC.
12444 Powerscourt Drive, Suite 550
St. Louis, Missouri 63131

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REQUIRED INFORMATION

The Cass Information Systems, Inc. 401(k) Plan (the “Plan”) is subject to the provisions of the Employee Retirement Income Security Act of 1974, as amended (“ERISA”), and for purposes of satisfying the requirements of Form 11-K has included for filing herewith the Plan financial statements and schedule prepared in accordance with the financial reporting requirements of ERISA.

CASS INFORMATION SYSTEMS, INC. 401(K) PLAN INDEX

* All other schedules required by Section 2520.103-10 of the Department of Labor’s Rules and Regulations for Reporting and Disclosure under ERISA have been omitted because they are not applicable.

Cummings, Ristau & Associates, P.C.
CERTIFIED PUBLIC ACCOUNTANTS

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Retirement Plan Committee
Cass Information Systems, Inc.
401(k) Plan:

We have audited the accompanying statements of assets available for plan benefits of the Cass Information Systems, Inc. 401(k) Plan (the Plan) as of December 31, 2016 and 2015, and the related statements of changes in assets available for plan benefits for the years then ended. These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the assets available for plan benefits of the Plan as of December 31, 2016 and 2015, and the changes in assets available for plan benefits for the years then ended, in conformity with accounting principles generally accepted in the United States of America.

The accompanying supplemental schedule of assets (held at end of year) as of December 31, 2016, has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The information in the supplemental schedule is the responsibility of the Plan's management. Our audit procedures included determining whether the information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information presented in the supplemental schedule. In forming our opinion on the information, we evaluated whether such information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the schedule of assets (held at end of year) is fairly stated in all material respects, in relation to the financial statements taken as a whole.

Cummings, Ristau & Associates, P.C.

St. Louis, Missouri
June 26, 2017

CASS INFORMATION SYSTEMS, INC.
401(k) PLAN

Statements of Assets Available for Plan Benefits

December 31, 2016 and 2015

	2016	2015
Investments, at fair value:		
Pooled separate accounts	$24,152,378	22,335,697
Mutual funds	7,001,975	6,062,998
Collective trust funds	17,235,962	13,711,017
Insurance company general account (unallocated contracts)	1,944,905	1,996,258
Employer common stock	1,358,755	949,943
Total investments	51,693,975	45,055,913
Notes receivable from participants	1,243,102	1,377,858
Employer contributions receivable	—	33,444
Assets available for plan benefits	$52,937,077	46,467,215

See accompanying notes to financial statements.

CASS INFORMATION SYSTEMS, INC.
401(k) PLAN

Statements of Changes in Assets Available for Plan Benefits

Years ended December 31, 2016 and 2015

	2016	2015
Additions:		
Contributions:		
Employer	$ 624,887	657,250
Employee	3,121,089	2,859,960
Rollover	719,567	607,815
	4,465,543	4,125,025
Investment income (loss):		
Interest on insurance company general account	14,957	14,866
Dividends	127,625	108,847
Net appreciation (depreciation) in fair value of investments	4,079,863	(218,943)
	4,222,445	(95,230)
Interest on notes receivable from participants	68,728	66,812
Total additions	8,756,716	4,096,607
Deductions:		
Benefit payments	2,261,988	2,499,809
Other	24,866	28,545
Total deductions	2,286,854	2,528,354
Increase in assets available for plan benefits	6,469,862	1,568,253
Assets available for plan benefits:		
Beginning of year	46,467,215	44,898,962
End of year	$52,937,077	46,467,215

See accompanying notes to financial statements.

CASS INFORMATION SYSTEMS, INC.
401(k) PLAN

Notes to Financial Statements

December 31, 2016 and 2015

NOTE 1 – PLAN DESCRIPTION

The following description of the Plan provides general information. Participants should refer to the plan agreement for a more complete description of the Plan's provisions.

(a) Employer Contributions – The amount of employer contributions, if any, is discretionary and determined by the Board of Directors of Cass Information Systems, Inc. (the Company). The employer contributions are based upon amounts contributed by the employees.

The employer has indicated the discretionary contribution will be an amount equal to 50% of a participant's contribution up to 3% of the participant's salary, provided such contributions are within the guidelines of the Plan.

Effective December 31, 2016, all employees hired July 1, 2015 and after are eligible to receive an amount equal to 50% of a participant's contribution up to 6% of the participant's salary, provided such contributions are within the Plan provisions and IRS guidelines. Also, this group of employees will be eligible to receive an additional company contribution up to 3% of the participant's salary. The participant does not need to be actively making deferrals into the Plan to be eligible to receive the additional contribution.

(b) Employee Contributions – Each plan participant may elect to make contributions to the Plan of 1% to 100% of the participant's compensation for such fiscal year as long as such contributions do not exceed the maximum permissible by the Internal Revenue Code. Participants may also contribute amounts representing distributions from other qualified defined contribution plans. Eligible new hires as of January 1, 2017 are automatically enrolled for pre-tax contributions at a 6% deferral rate unless they elect otherwise; prior to January 1, 2017 the automatic deferral rate was 4%.

(c) Participant Eligibility – Any employee of the Company or its wholly owned subsidiary, Cass Commercial Bank, shall be eligible to become a participant in the Plan provided the employee has completed one month of service, is 21 years of age or older, and does not have "offsite" included in the job title.

(d) Participant Accounts – Each participant's account is credited with the participant's contributions and allocations of the Company's contributions and plan earnings, and charged with an allocation of administrative expenses. Allocations are based on participant earnings or account balances, as defined. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

(e) Vesting – Employees are 100% vested in any portion of their account resulting from their savings contributions and any rollover contributions. Employer matching and discretionary contributions credited after December 31, 1990 are subject to vesting as follows:

Years of service	Vesting percentage
Less than three	— %
Three or more	100%

If an employee terminates employment before full vesting, the nonvested portions of employer matching and discretionary contributions are used to reduce future contributions or plan administration costs of the Company. Forfeited nonvested accounts totaled $34,763 and $30,015 during 2016 and 2015, respectively.

(f) Distributions – Under the terms of the Plan, participants hired prior to January 1, 2017 reaching the age of 59 ½ are eligible to receive the entire balance in all of the accounts maintained for such participant. Participants hired January 1, 2017 and after reaching the age of 65 are eligible to receive the entire balance in all of the accounts maintained for such participant. Participants terminating employment prior to the attainment of age 59 ½ receive their contributions and earnings on such contributions and the sponsor’s account and earnings on such account, if such amounts are vested. In the event of death, the balances in the participant’s account are fully vested and paid to the designated beneficiary.

(g) Costs of Plan Administration – Fees and expenses incurred by the Company in the administration of the Plan are paid by the Company or from forfeited nonvested accounts. Expenses solely attributable to the investment of funds are paid with plan assets.

(h) Notes Receivable From Participants – Participants may borrow from their accounts a minimum of $1,000 up to a maximum equal to the lesser of $50,000 or 50% of the participant’s vested account balance, per plan provisions. The loans are secured by the balance in the participant’s account and bear interest at rates which are commensurate with local prevailing rates as determined periodically by the Cass Information Systems, Inc. Retirement Plan Committee (the Plan Administrator). Principal and interest are paid ratably through payroll deductions.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The following are the significant accounting policies followed by the Plan:

(a) Basis of Presentation – The accompanying financial statements have been prepared on the accrual basis of accounting and present the assets available for plan benefits and changes in those assets. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires estimates and assumptions that affect the reported amounts. Actual results could differ from those estimates.

(b) Trust Fund – Under the terms of a trust agreement between the Principal Life Insurance Company (the Custodian) and the Company, the Custodian administers a trust fund on behalf of the Plan. Participants may elect to have a portion of their account balances invested in a General Account, which is comprised of investments in guaranteed interest contracts with an insurance company, a variety of interests in pooled separate accounts, mutual funds, and collective trust funds investing in debt and equity instruments, and common stock of the Company.

(c) Investment Valuation and Income Recognition – 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, as described more fully in note 3.

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

(d) Notes Receivable From Participants – Notes receivable from participants are reported at their unpaid principal balances plus any accrued but unpaid interest. Related fees are recorded as administrative expenses and are charged to expense when incurred. No allowance for credit losses has been recorded as of December 31, 2016 or 2015. If a participant ceases to make loan repayments and the Plan Administrator deems the participant loan to be in default, the participant loan balance is reduced and a benefit is recorded.

(e) Subsequent Events – The Plan has evaluated subsequent events through June 26, 2017, the date the financial statements were issued.

(f) Recent Accounting Pronouncements – In May 2015, the Financial Accounting Standards Board issued Accounting Standards Update 2015-07, *Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value Per Share (or Its Equivalent)* ("ASU 2015-07"). ASU 2015-07 removes the requirement to categorize within the fair value hierarchy all investments for which fair value is measured using the net asset value per share practical expedient. However, sufficient information must be provided to permit a reconciliation of the fair value of assets categorized within the fair value hierarchy to the amounts presented in the statements of assets available for plan benefits. ASU 2015-07 also removes the requirement to make certain disclosures for all investments that are eligible to be measured at fair value using the net asset value per share practical expedient. The Plan adopted the provisions of ASU 2015-07 for the 2016 plan year and the ASU has been applied retrospectively to December 31, 2015. The impact of adopting this ASU is reflected in Note 3.

In July 2015, the Financial Accounting Standards Board issued Accounting Standards Update 2015-12, *Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): (Part I) Fully Benefit-Responsive Investment Contract, (Part II) Plan Investment Disclosures, (Part III) Measurement Date Practical Expedient* ("ASU 2015-12"). The amendments in this update remove the requirement to record fully benefit-responsive investment contracts at fair value and designate contract value as the only required measure for these contracts. The amendments also remove the requirement to disclose (a) individual investments that represent five percent or more of net assets available for benefits and (b) the net appreciation or depreciation for investments by general type, however, the net appreciation or depreciation in investments is still required to be presented in the aggregate. This amendment also provides a practical expedient to permit plans to measure investments and investment related accounts as of a month end date that is closest to the plan's fiscal year when the fiscal period does not coincide with month end. The Plan adopted the provisions of ASU 2015-12 and the ASU has been applied retrospectively to December 31, 2015. The impact of adopting this ASU is reflected in Note 3.

NOTE 3 – FAIR VALUE MEASUREMENTS

The Plan's investments are reported at fair value in the accompanying statements of assets available for plan benefits. The methods used to measure fair value may produce an amount that may not be indicative of net realizable value or reflective of future values. Furthermore, although the Plan Administrator believes the 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 fair value measurement accounting literature establishes a value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. This hierarchy consists of three broad levels:

Level 1 – Inputs to the valuation methodology are unadjusted quoted prices for identical assets and liabilities in active markets and have the highest priority.

Level 2 – Inputs to the valuation methodology include 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, or 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 have the lowest priority.

The Plan uses appropriate valuation techniques based on the available inputs to measure the fair value of its investments. When available, the Plan measures fair value using Level 1 inputs because they generally provide the most reliable evidence of fair value. Level 3 inputs are used only when Level 1 and Level 2 inputs are not available.

Following is a description of the valuation methodologies used for assets measured at fair value. There have been no changes in the methodologies used at December 31, 2016 and 2015.

Common stocks – valued at the closing price reported on the active market on which the individual securities are traded (Level 1 inputs).

Mutual funds – valued at the daily closing price as reported by the fund (Level 1 inputs). Mutual funds held by the Plan are open-end mutual funds which are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value (NAV) and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.

Collective trust funds – valued at the NAV of the units of the Principal Trust Company collective trusts. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. The investments have no unfunded commitments and can be redeemed daily with a one day notice period.

Pooled separate accounts – valued at the NAV of the pooled separate accounts. The NAV, as provided by the trustee, is used as a practical expedient to estimate fair value. The NAV is based on the fair value of the underlying investments held by the fund less its liabilities. The investments have no unfunded commitments and can be redeemed daily with a one day notice period.

Guaranteed investment contracts – fair value is the amount plan participants would receive currently if they were to withdraw or transfer funds from the Plan prior to their maturity for an event other than death, disability, termination, or retirement. This fair value represents contract value adjusted to reflect current market interest rates only to the extent such market rates exceed crediting rates (Level 3 inputs).

The following tables set forth, by level with the fair value hierarchy, the Plan's investments at fair value as of December 31, 2016 and 2015:

2016	Quoted market prices in active market for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Mutual funds	$ 7,001,975	—	—	7,001,975
Employer common stock	1,358,755	—	—	1,358,755
Insurance company general account	—	—	1,944,905	1,944,905
	$ 8,360,730	—	1,944,905	10,305,635
Measured at net asset value:				
Pooled separate accounts				24,152,378
Collective trust funds				17,235,962
				$51,693,975

2015	Quoted market prices in active market for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Total
Mutual funds	$ 6,062,998	—	—	6,062,998
Employer common stock	949,943	—	—	949,943
Insurance company general account	—	—	1,996,258	1,996,258
	$ 7,012,941	—	1,996,258	9,009,199
Measured at net asset value:				
Pooled separate accounts				22,335,697
Collective trust funds				13,711,017
				$45,055,913

Following is a summary of changes in the fair value of the insurance company general account, the only plan asset valued using Level 3 inputs, for the years ended December 31, 2016 and 2015:

	2016	2015
Balance, beginning of year	$1,996,258	2,430,127
Realized and unrealized losses relating to instruments still held at the reporting date	8	1,506
Interest credited	14,957	14,866
Purchases, sales, issuances, and settlements (net)	(66,318)	(450,241)
Balance, end of year	$1,944,905	1,996,258

NOTE 4 – RELATED PARTY TRANSACTIONS

Certain plan investments are units of pooled accounts or collective trust funds managed by Principal Life Insurance Company or affiliates thereof. Principal Life Insurance Company is the Custodian as defined by the Plan and, therefore, these transactions qualify as party-in-interest transactions. Fees paid by the Plan for the investment management and recordkeeping services amounted to $24,866 and $28,545 for the years ended December 31, 2016 and 2015, respectively.

The Plan invests in common stock of the company. At December 31, 2016 and 2015, the Plan held 18,468.8692 and 18,459.8269 shares of Company common stock, with fair values of $1,358,755 and $949,943, respectively. During the years ended December 31, 2016 and 2015, the Plan received dividends totaling $17,173 and $13,957, respectively, on shares of Company common stock.

NOTE 5 – PLAN TERMINATION

Although it has not expressed any intent to do so, the Plan Administrator has the right under the Plan to terminate the Plan subject to the provisions set forth in ERISA. In the event of plan termination, participants become 100% vested in their accounts. The Company may elect to have all assets transferred to another qualified plan in which all participants who would have otherwise received a distribution will have an interest, and each person's interest will be nonforfeitable as to amounts attributable to assets transferred on his or her behalf.

NOTE 6 – RISKS AND UNCERTAINTIES

The Plan invests in various investment securities. Investment securities are exposed to various risks such as interest rate, market, and credit risks. Due to the level of risk associated with certain investment securities, it is at least reasonably possible that changes in the values of investment 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 assets available for plan benefits.

NOTE 7 – FEDERAL INCOME TAXES

The Internal Revenue Service issued its latest determination letter on March 31, 2008, which indicates the prototype plan document adopted by the Plan qualifies under the provisions of Section 401(a) and the trust is exempt from federal income taxes under the provisions of Section 501(a) of the Internal Revenue Code, as amended. While various amendments have been made to the Plan since 2008, in the opinion of the Plan Administrator, the Plan and its underlying trust have operated within the terms of the Plan and remain qualified under the applicable provisions of the Internal Revenue Code.

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CASS INFORMATION SYSTEMS, INC.
401(k) PLAN

Employer Identification Number: 43-1265338
Plan Number: 002

Schedule H, line 4i – Schedule of Assets (Held at End of Year)

December 31, 2016

(a)	(b) Identity of issuer, borrower, lessor or similar party	(c) Description of investment including maturity date, rate of interest, collateral, par, or maturity value	(d) Cost	(e) Current value
*	Principal Life Insurance Company	General Account	**	$ 1,944,905
		Pooled separate accounts:		
*	Principal Life Insurance Company	Money Market Account	**	3,188,357
*	Principal Life Insurance Company	Core Plus Bond Account	**	1,701,590
*	Principal Life Insurance Company	Diversified International Stock Account	**	1,092,215
*	Principal Life Insurance Company	International Emerging Markets Account	**	1,134,683
*	Principal Life Insurance Company	International Equity Index Account	**	679,369
*	Principal Life Insurance Company	Large Cap S&P 500 Index Account	**	4,127,903
*	Principal Life Insurance Company	Large Cap Growth Account	**	2,822,942
*	Principal Life Insurance Company	Mid Cap Separate Account	**	2,002,278
*	Principal Life Insurance Company	Mid Cap Value Account	**	816,882
*	Principal Life Insurance Company	Mid Cap S&P 400 Index Account	**	774,142
*	Principal Life Insurance Company	Small Cap Account	**	1,813,439
*	Principal Life Insurance Company	Small Cap S&P 600 Index Account	**	2,828,765
*	Principal Life Insurance Company	U.S. Property Account	**	1,169,813
		Collective trust funds:		
*	Principal Trust Company	Principal Trust Income Fund	**	226,083
*	Principal Trust Company	Principal Trust Target 2010 Fund	**	814,600
*	Principal Trust Company	Principal Trust Target 2020 Fund	**	4,896,649
*	Principal Trust Company	Principal Trust Target 2030 Fund	**	5,285,449
*	Principal Trust Company	Principal Trust Target 2040 Fund	**	3,653,215
*	Principal Trust Company	Principal Trust Target 2050 Fund	**	2,275,322
*	Principal Trust Company	Principal Trust Target 2060 Fund	**	84,644
		Mutual funds:		
	American Funds	AMCAP Fund	**	176,169
	Buffalo Funds	Buffalo Mid Cap Fund	**	1,054,220
	Dimensional Investment Group	DFA US Small Cap I Fund	**	26,074
	Fidelity Investments	Fidelity Advisor Small Cap Value Fund	**	536,996
	Invesco Distributors	Invesco Comstock Fund	**	340,123
	Lord Abbett & Co., LLC	Lord Abbett Developing Growth Fund	**	327,682
	Lord Abbett & Co., LLC	Lord Abbett Short Duration Income Fund	**	1,022,634
	Vanguard Group	Vanguard Total Bond Market Index Fund	**	1,471,110
	American Funds	Washington Mutual Investors Fund	**	2,046,967
*	Cass Information Systems, Inc.	Common stock	**	1,358,755
	Participant loans	Interest rates at 5.00% to 5.75%	—	1,243,102
				$52,937,077

* Party-in-interest.
** Not included for participant-directed investment programs, as permitted under the instructions to Form 5500.

See accompanying report of independent registered public accounting firm.

SIGNATURES

The Plan. Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

CASS INFORMATION SYSTEMS, INC. 401(K) PLAN

By:	/s/ P. Stephen Appelbaum
Name:	P. Stephen Appelbaum
Title:	Trustee

Date: June 26, 2017

EXHIBIT INDEX

Exhibit No.	Description of Exhibit
23.1	Consent of Cummings, Ristau & Associates, P.C.

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement No. 333-181772 of Cass Information Systems, Inc. on Form S-8 of our report dated June 26, 2017, relating to the financial statements and supplemental schedule of the Cass Information Systems, Inc. 401(k) Plan, appearing in this Annual Report on Form 11-K of the Cass Information Systems, Inc. 401(k) Plan for the year ended December 31, 2016.

Cummings, Ristau & Associates, P.C.

St. Louis, Missouri
June 26, 2017