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

FORM 10-Q

(Mark One)
[X]QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2019

[ ]TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE EXCHANGE ACT

For the transition period from _________ to _________

Commission file number 001-15757

IMAGEWARE SYSTEMS, INC.
(Exact Name of Registrant as Specified in Its Charter)

Delaware	**33-0224167**
(State or Other Jurisdiction of Incorporation or Organization)	(IRS Employer Identification No.)

13500 Evening Creek Drive N., Suite 550
San Diego, CA 92127
(Address of Principal Executive Offices)

(858) 673-8600
(Registrant's Telephone Number, Including Area Code)

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes [X] No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or emerging growth company. See definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	[ ]	Accelerated filer	[X]
Non-accelerated filer	[ ]	Smaller reporting company	[X]
		Emerging growth company	[ ]

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	IWSY	OTCQB Marketplace

The number of shares of common stock, par value $0.01 per share, outstanding on August 7, 2019 was 106,545,685.

IMAGEWARE SYSTEMS, INC.

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PART I

ITEM 1. FINANCIAL STATEMENTS

IMAGEWARE SYSTEMS, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In Thousands, except for share and per share data)

	June 30, 2019	December 31, 2018
	(Unaudited)	
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 6,734	$ 5,694
Accounts receivable, net of allowance for doubtful accounts of $7 at June 30, 2019 and $0 at December 31, 2018.	376	968
Inventory, net	319	29
Other current assets	271	233
Total Current Assets	7,700	6,924
Property and equipment, net	222	244
Other assets	286	332
Operating lease right-of-use assets	2,060	—
Intangible assets, net of accumulated amortization	76	82
Goodwill	3,416	3,416
Total Assets	**$ 13,760**	**$ 10,998**
LIABILITIES AND SHAREHOLDERS' DEFICIT		
Current Liabilities:		
Accounts payable	$ 552	$ 678
Deferred revenue	1,073	1,215
Accrued expense	1,346	888
Operating lease liabilities, current portion	239	—
Derivative liabilities	1,008	1,065
Total Current Liabilities	4,218	3,846
Other long-term liabilities	118	147
Lease liabilities, net of current portion	1,942	—
Pension obligation	1,928	1,876
Total Liabilities	8,206	5,869
Mezzanine Equity:		
Series C Convertible Redeemable Preferred Stock, $0.01 par value, designated 1,000 shares, 1,000 shares issued and outstanding at June 30, 2019 and December 31, 2018; liquidation preference $10,000 at June 30, 2019 and December 31, 2018.	8,526	8,156
Shareholders' Equity (Deficit):		
Preferred stock, authorized 4,000,000 shares:		
Series A Convertible Redeemable Preferred Stock, $0.01 par value; designated 38,000 shares, 37,467 shares issued and outstanding at June 30, 2019 (unaudited) and December 31, 2018, respectively; liquidation preference $37,467 at June 30, 2019 (unaudited) and December 31, 2018, respectively.	—	—
Series B Convertible Redeemable Preferred Stock, $0.01 par value; designated 750,000 shares, 389,400 shares issued and 239,400 outstanding at June 30, 2019 (unaudited) and December 31, 2018, respectively; liquidation preference $607 at June 30, 2019 (unaudited) and December 31, 2018, respectively.	2	2
Common Stock, $0.01 par value, 175,000,000 shares authorized; 106,552,389 and 98,230,336 shares issued at June 30, 2019 (unaudited) and December 31, 2018, respectively, and 106,545,685 and 98,223,632 shares outstanding at June 30, 2019 (unaudited) and December 31, 2018, respectively.	1,065	981
Additional paid-in capital	192,565	184,130
Treasury stock, at cost 6,704 shares	(64)	(64)
Accumulated other comprehensive loss	(1,433)	(1,428)
Accumulated deficit	(195,107)	(186,648)
Total Shareholders' Deficit	(2,972)	(3,027)
Total Liabilities, Mezzanine Equity and Shareholders' Deficit	**$ 13,760**	**$ 10,998**

The accompanying notes are an integral part of these condensed consolidated financial statements.

IMAGEWARE SYSTEMS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In Thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Revenue:				
Product	$ 160	$ 1,182	$ 438	$ 1,279
Maintenance	652	703	1,305	1,322
	812	1,885	1,743	2,601
Cost of revenue:				
Product	34	139	117	165
Maintenance	106	167	226	390
Gross profit	672	1,579	1,400	2,046
Operating expense:				
General and administrative	894	970	2,001	2,141
Sales and marketing	934	816	1,939	1,680
Research and development	1,840	1,865	3,614	3,664
Depreciation and amortization	17	11	36	24
	3,685	3,662	7,590	7,509
Loss from operations	(3,013)	(2,083)	(6,190)	(5,463)
Interest expense (income), net	(31)	184	(53)	356
Other expense	1	—	1	—
Change in fair value of derivative liabilities	(481)	—	(57)	—
Other components of net periodic pension expense	45	17	78	49
Loss before income taxes	(2,547)	(2,284)	(6,159)	(5,868)
Income tax expense	1	—	1	1
Net loss	(2,548)	(2,284)	(6,160)	(5,869)
Preferred dividends and preferred stock discount accretion	(1,374)	(720)	(2,668)	(1,489)
Net loss available to common shareholders	$ (3,922)	$ (3,004)	$ (8,828)	$ (7,358)
Basic and diluted loss per common share - see Note 3:				
Net loss	$ (0.03)	$ (0.02)	$ (0.06)	$ (0.06)
Preferred dividends and preferred stock discount accretion	(0.01)	(0.01)	(0.03)	(0.02)
Basic and diluted loss per share available to common shareholders	$ (0.04)	$ (0.03)	$ (0.09)	$ (0.08)
Basic and diluted weighted-average shares outstanding	103,431,623	95,161,570	100,928,835	94,749,904

The accompanying notes are an integral part of these condensed consolidated financial statements.

IMAGEWARE SYSTEMS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In Thousands)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	**2018**	**2019**	**2018**
Net loss	$ (2,548)	$ (2,284)	$ (6,160)	$ (5,869)
Other comprehensive income (loss):				
Foreign currency translation adjustment	(20)	43	(5)	15
Comprehensive loss	$ (2,568)	$ (2,241)	$ (6,615)	$ (5,854)

The accompanying notes are an integral part of these condensed consolidated financial statements.

IMAGEWARE SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' DEFICIT
(In Thousands, except share amounts)
(Unaudited)

Three and Six Months Ended June 30, 2019

	Series A Convertible, Redeemable Preferred		Series B Convertible, Redeemable Preferred		Common Stock		Treasury Stock		Additional Paid-In	Accumulated Other Comprehensive	Accumulated	
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Capital	Loss	Deficit	Total
Balance at December 31, 2018	37,467	$ -	239,400	$ 2	98,230,336	$ 981	(6,704)	$ (64)	$184,130	$ (1,428)	$ (186,648)	$(3,027)
Accretion of Series A Preferred Stock discount	-	-	-	-	-	-	-	-	(186)	-	-	(186)
Issuance of Common Stock pursuant to option exercises	-	-	-	-	286,834	3	-	-	103	-	-	106
Stock-based compensation expense	-	-	-	-	-	-	-	-	166	-	-	166
Foreign currency translation adjustment	-	-	-	-	-	-	-	-	-	15	-	15
Dividends on preferred stock	-	-	-	-	749,748	8	-	-	1,087	-	(1,095)	-
Net loss	-	-	-	-	-	-	-	-	-	-	(3,612)	(3,612)
Balance at March 31, 2019	37,467	$ -	239,400	$ 2	99,266,918	$ 992	(6,704)	$ (64)	$185,300	$ (1,413)	$ (191,355)	$(6,538)
Accretion of Series A Preferred Stock discount	-	-	-	-	-	-	-	-	(184)	-	-	(184)
Issuance of Common Stock net of financing costs	-	-	-	-	5,954,545	60	-	-	6,035	-	-	6,095
Issuance of Common Stock pursuant to option exercises	-	-	-	-	64,500	1	-	-	59	-	-	60
Stock-based compensation expense	-	-	-	-	-	-	-	-	181	-	-	181
Issuance of Common Stock warrants as compensation	-	-	-	-	-	-	-	-	8	-	-	8
Foreign currency	-	-	-	-	-	-	-	-	-	(20)	-	(20)

translation adjustment												
Dividends on preferred stock	-	-	-	-	1,266,426	12	-	-	1,166	-	(1,204)	(26)
Net loss	-	-	-	-	-	-	-	-	-	-	(2,548)	(2,548)
Balance at June 30, 2019	37,467	$ -	239,400	$ 2	106,552,389	$ 1,065	(6,704)	$ (64)	$192,565	$ (1,433)	$ (195,107)	$(2,972)

IMAGEWARE SYSTEMS, INC.
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY (DEFICIT)
(In Thousands, except share amounts)
(Unaudited)

Three and Six Months Ended June 30, 2018

	Series A Convertible, Redeemable Preferred		Series B Convertible, Redeemable Preferred		Common Stock		Treasury Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2017	31,021	$ -	239,400	$ 2	94,174,540	$ 941	(6,704)	$ (64)	$172,414	$ (1,664)	$ (170,481)	$ 1,148
Issuance of Common Stock pursuant to Series A Preferred Stock conversions	(450)	-	-	-	391,304	4	-	-	(4)	-	-	-
Cumulative effect of ASC 606 adoption	-	-	-	-	-	-	-	-	-	-	96	96
Issuance of Common Stock pursuant to option exercises	-	-	-	-	83,169	1	-	-	87	-	-	88
Recognition of beneficial conversion feature on convertible debt	-	-	-	-	-	-	-	-	12	-	-	12
Stock-based compensation expense	-	-	-	-	-	-	-	-	335	-	-	335
Foreign currency translation adjustment	-	-	-	-	-	-	-	-	-	(27)	-	(27)
Dividends on preferred stock	-	-	-	-	472,562	4	-	-	750	-	(754)	-
Net loss	-	-	-	-	-	-	-	-	-	-	(3,583)	(3,583)
Balance at March 31, 2018	30,571	$ -	239,400	$ 2	95,121,575	$ 950	(6,704)	$ (64)	$173,594	$ (1,691)	$ (174,722)	$(1,931)
Issuance of Common Stock pursuant to option exercises	-	-	-	-	65,588	1	-	-	60	-	-	61
Recognition of beneficial conversion feature on convertible debt	-	-	-	-	-	-	-	-	9	-	-	9
Stock-based compensation expense	-	-	-	-	-	-	-	-	373	-	-	373

Issuance of Common Stock warrants as compensation	-	-	-	-	-	-	-	-	9	-	-	9
Foreign currency translation adjustment	-	-	-	-	-	-	-	-	-	42	-	42
Dividends on preferred stock	-	-	-	-	648,696	6	-	-	704	-	(737)	(27)
Net loss	-	-	-	-	-	-	-	-	-	-	(2,284)	(2,284)
Balance at June 30, 2018	30,571	$ -	239,400	$ 2	95,835,859	$ 957	(6,704)	$ (64)	$174,749	$ (1,649)	$ (177,743)	$(3,748)

IMAGEWARE SYSTEMS, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)
(Unaudited)

	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018
Cash flows from operating activities		
Net loss	$ (6,160)	$ (5,869)
Adjustments to reconcile net loss to net cash used by operating activities:		
Depreciation and amortization	36	24
Amortization of debt issuance costs and beneficial conversion feature	—	122
Stock-based compensation	347	708
Warrants issued in lieu of cash as compensation for services	8	9
Change in fair value of derivative liabilities	(57)	—
Change in assets and liabilities:		
Accounts receivable	592	(118)
Inventory	(290)	60
Other assets	8	(44)
Operating lease right-of-use assets	106	—
Accounts payable	(127)	(67)
Deferred revenue	(142)	(464)
Accrued expense	473	389
Contract costs	(29)	—
Pension obligation	52	14
Total adjustments	977	633
Net cash used in operating activities	(5,183)	(5,236)
Cash flows from investing activities		
Purchase of property and equipment	(8)	(7)
Net cash used in investing activities	(8)	(7)
Cash flows from financing activities		
Proceeds from issuance of Common Stock, net of financing costs	6,095	—
Dividends paid	(25)	(25)
Proceeds from exercised stock options	166	149
Net cash provided by financing activities	6,236	124
Effect of exchange rate changes on cash and cash equivalents	(5)	15
Net increase (decrease) in cash and cash equivalents	1,040	(5,104)
Cash and cash equivalents at beginning of period	5,694	7,317
Cash and cash equivalents at end of period	$ 6,734	$ 2,213
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ —	$ —
Cash paid for income taxes	$ —	$ —
Summary of non-cash investing and financing activities:		
Beneficial conversion feature on convertible related party lines of credit	$ —	$ 21
Stock dividends on Series A Convertible Preferred Stock	$ 1,794	$ 1,464
Stock dividends on Series C Convertible Redeemable Preferred Stock	$ 479	$ —
Accretion of discount on Series C Convertible Redeemable Preferred Stock	$ 370	$ —
Recognition of operating lease right-of-use assets from adoption of ASC 842	$ 2,265	$ —
Recognition of lease liabilities from adoption of ASC 842	$ (2,280)	$ —
Conversion of Convertible Preferred Stock into Common Stock	$ —	$ 4

The accompanying notes are an integral part of these condensed consolidated financial statements.

IMAGEWARE SYSTEMS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)

NOTE 1. ORGANIZATION AND DESCRIPTION OF BUSINESS

Overview

As used in this Quarterly Report, "we," "us," "our," "ImageWare," "ImageWare Systems," "Company" or "our Company" refers to ImageWare Systems, Inc. and all of its subsidiaries. ImageWare Systems, Inc. is incorporated in the state of Delaware. The Company is a pioneer and leader in the emerging market for biometrically enabled software-based identity management solutions. Using those human characteristics that are unique to us all, the Company creates software that provides a highly reliable indication of a person's identity. The Company's "flagship" product is the patented IWS Biometric Engine®. The Company's products are used to manage and issue secure credentials, including national IDs, passports, driver licenses and access control credentials. The Company's products also provide law enforcement with integrated mug shot, fingerprint LiveScan and investigative capabilities. The Company also provides comprehensive authentication security software using biometrics to secure physical and logical access to facilities or computer networks or internet sites. Biometric technology is now an integral part of all markets the Company addresses, and all the products are integrated into the IWS Biometric Engine.

Recent Developments

In May 2019, the Company completed a registered direct offering of 5,954,545 shares of its common stock, $0.01 par value ("*Common Stock*") at a price of $1.10 per share, resulting in gross proceeds to the Company of approximately $6,550,000. Net proceeds to the Company were approximately $6,095,000 after recognition of offering expenses.

Liquidity, Going Concern and Management's Plan

Historically, our principal sources of cash have included customer payments from the sale of our products, proceeds from the issuance of common and preferred stock and proceeds from the issuance of debt. Our principal uses of cash have included cash used in operations, product development, and payments relating to purchases of property and equipment. We expect that our principal uses of cash in the future will be for product development, including customization of identity management products for enterprise and consumer applications, further development of intellectual property, development of Software-as-a-Service ("*SaaS*") capabilities for existing products as well as general working capital and capital expenditure requirements. Management expects that, as our revenue grows, our sales and marketing and research and development expense will continue to grow, albeit at a slower rate and, as a result, we will need to generate significant net revenue to achieve and sustain income from operations.

Going Concern

At June 30, 2019, we had positive working capital of approximately $3,482,000. Our principal sources of liquidity at June 30, 2019 consisted of approximately $6,734,000 of cash and cash equivalents.

Considering the Common Stock financing completed in May 2019, as well as our projected cash requirements, and assuming we are unable to generate incremental revenue, our available cash may be insufficient to satisfy our cash requirements for the next twelve months from the date of this filing. These factors raise substantial doubt about our ability to continue as a going concern. To address our working capital requirements, management may seek additional equity and/or debt financing through the issuance of additional debt and/or equity securities or may seek strategic or other transactions intended to increase shareholder value. There are currently no formal committed financing arrangements to support our projected cash shortfall, including commitments to purchase additional debt and/or equity securities, or other agreements, and no assurances can be given that we will be successful in raising additional debt and/or equity securities, or entering into any other transaction that addresses our ability to continue as a going concern.

In view of the matters described in the preceding paragraph, recoverability of a major portion of the recorded asset amounts shown in the accompanying consolidated balance sheet is dependent upon continued operations of the Company, which, in turn, is dependent upon the Company's ability to continue to raise capital and generate positive cash flows from operations. However, the Company operates in markets that are emerging and highly competitive. There is no assurance that the Company will be able to obtain additional capital, operate at a profit or generate positive cash flows in the future.

These condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts and classifications of liabilities that might be necessary should the Company be unable to continue as a going concern.

NOTE 2. SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF PRESENTATION

Basis of Presentation

The accompanying condensed consolidated balance sheet as of December 31, 2018, which has been derived from audited financial statements, and the unaudited interim condensed consolidated financial statements have been prepared by the Company in accordance with accounting principles generally accepted in the United States of America ("*GAAP*") and the rules and regulations of the SEC related to a quarterly report on Form 10-Q. Certain information and note disclosures normally included in annual financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to those rules and regulations, although the Company believes that the disclosures made are adequate to make the information not misleading. The interim financial statements reflect all adjustments, which, in the opinion of management, are necessary for a fair statement of the results for the periods presented. All such adjustments are of a normal and recurring nature. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited financial statements for the year ended December 31, 2018, which are included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018 that was filed with the SEC on March 28, 2019.

Operating results for the three and six months ended June 30, 2019 are not necessarily indicative of the results that may be expected for the year ended December 31, 2019, or any other future periods.

Certain prior period amounts have been reclassified to conform with current period presentation. Pursuant to the Company's adoption of Accounting Standards Update 2017-07 - *Compensation – Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost* ("*ASU 2017-07*"), the Company is presenting certain elements of periodic pension expense as a separate line item "Other components of net periodic pension expense" outside the loss from operations, in the Company's condensed Consolidated Statements of Operations. These reclassifications have no impact on net loss.

Significant Accounting Policies

Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. The Company's wholly-owned subsidiaries are: XImage Corporation, a California Corporation; ImageWare Systems ID Group, Inc., a Delaware corporation (formerly Imaging Technology Corporation); I.W. Systems Canada Company, a Nova Scotia unlimited liability company; ImageWare Digital Photography Systems, LLC, a Nevada limited liability company (formerly Castleworks LLC); Digital Imaging International GmbH, a company formed under German laws; and Image Ware Mexico S de RL de CV, a company formed under Mexican laws. All significant intercompany transactions and balances have been eliminated.

Use of Estimates

The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenue and expense during the reporting period. Significant estimates include the evaluation of our ability to continue as a going concern, the allowance for doubtful accounts receivable, deferred tax asset valuation allowances, recoverability of goodwill, assumptions used in the Black-Scholes model to calculate the fair value of share based payments, fair value of financial instruments issued with and affected by the Series C Preferred Financing, assumptions used in the application of revenue recognition policies, assumptions used in the derivation of the Company's incremental borrowing rate used in the computation of the Company's operating lease liabilities and assumptions used in the application of fair value methodologies to calculate the fair value of pension assets and obligations. Actual results could differ from estimates.

Accounts Receivable

In the normal course of business, the Company extends credit without collateral requirements to its customers that satisfy pre-defined credit criteria. Accounts receivable are recorded net of an allowance for doubtful accounts. Accounts receivable are considered delinquent when the due date on the invoice has passed. The Company records its allowance for doubtful accounts based upon its assessment of various factors. The Company considers historical experience, the age of the accounts receivable balances, the credit quality of its customers, current economic conditions and other factors that may affect customers' ability to pay to determine the level of allowance required. Accounts receivable are written off against the allowance for doubtful accounts when all collection efforts by the Company have been unsuccessful.

Inventories

Finished goods inventories are stated at the lower of cost, determined using the average cost method, or net realizable value. See Note 4, "*Inventory*," below.

Property, Equipment and Leasehold Improvements

Property and equipment, consisting of furniture and equipment, are stated at cost and are being depreciated on a straight-line basis over the estimated useful lives of the assets, which generally range from three to five years. Maintenance and repairs are charged to expense as incurred. Major renewals or improvements are capitalized. When assets are sold or abandoned, the cost and related accumulated depreciation are removed from the accounts and the resulting gain or loss is recognized. Expenditures for leasehold improvements are capitalized. Amortization of leasehold improvements is computed using the straight-line method over the shorter of the remaining lease term or the estimated useful lives of the improvements.

Fair Value of Financial Instruments

For certain of the Company's financial instruments, including accounts receivable, accounts payable, accrued expense, and deferred revenue, the carrying amounts approximate fair value due to their relatively short maturities.

Lease Liabilities and Operating Lease Right-of-Use Assets

The Company is a party to certain contractual arrangements for office space which meet the definition of leases under Accounting Standards Codification ("*ASC*") Topic 842 – Leases ("*ASC 842*"). In accordance with ASC 842, the Company has determined that such arrangements are operating leases and accordingly the Company has, as of January 1, 2019, recorded operating lease right-of-use assets and related lease liability for the present value of the lease payments over the lease terms using the Company's estimated weighted-average incremental borrowing rate of approximately 14.5%. The Company has utilized the practical expedient regarding lease and nonlease components and has combined such items into a single combined component. The Company has also utilized the practical expedient regarding leases of twelve months or less and has excluded such leases from its computation of lease liability and related right-of-use assets. The Company has also elected the optional transition package of practical expedients which include:

A package of practical expedient to not reassess:

- Whether a contract is or contains a lease
- Lease classification
- Initial direct costs

Revenue Recognition

Effective January 1, 2018, we adopted ASC 606, Revenue from Contracts with Customers ("*ASC 606*"), using the modified retrospective transition method.

In accordance with ASC 606, revenue is recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services.

The core principle of the standard is that we should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. To achieve that core principle, we apply the following five step model:

1. Identify the contract with the customer;
2. Identify the performance obligation in the contract;
3. Determine the transaction price;
4. Allocate the transaction price to the performance obligations in the contract; and
5. Recognize revenue when (or as) each performance obligation is satisfied.

At contract inception, we assess the goods and services promised in a contract with a customer and identify as a performance obligation each promise to transfer to the customer either: (i) a good or service (or a bundle of goods or services) that is distinct, or (ii) a series of distinct goods or services that are substantially the same and that have the same pattern of transfer to the customer. We recognize revenue only when we satisfy a performance obligation by transferring a promised good or service to a customer.

Determining the timing of the satisfaction of performance obligations as well as the transaction price and the amounts allocated to performance obligations requires judgement.

We disclose disaggregation of our customer revenue by classes of similar products and services as follows:

- Software licensing and royalties;
- Sales of computer hardware and identification media;
- Services; and
- Post-contract customer support.

Software Licensing and Royalties

Software licenses consist of revenue from the sale of software for identity management applications. Our software licenses are functional intellectual property and typically provide customers with the right to use our software in perpetuity as it exists when made available to the customer. We recognize revenue from software licensing at a point in time upon delivery, provided all other revenue recognition criteria are met.

Royalties consist of revenue from usage-based arrangements and guaranteed minimum-based arrangements. We recognize revenue for royalty arrangements at the later of (i) when the related sales occur, or (ii) when the performance obligation to which some or all of the royalty has been allocated has been satisfied.

Computer Hardware and Identification Media

We generate revenue from the sale of computer hardware and identification media. Revenue for these items is recognized upon delivery of these products to the customer, provided all other revenue recognition criteria are met.

Services

Services revenue is comprised primarily of software customization services, software integration services, system installation services and customer training. Revenue is generally recognized upon completion of services and customer acceptance provided all other revenue recognition criteria are met.

Post-Contract Customer Support ("PCS")

Post contract customer support consists of maintenance on software and hardware for our identity management solutions. We recognize PCS revenue from periodic maintenance agreements. Revenue is generally recognized ratably over the respective maintenance periods provided no significant obligations remain. Costs related to such contracts are expensed as incurred.

Arrangements with Multiple Performance Obligations

A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. In addition to selling software licenses, hardware and identification media, services and post-contract customer support on a standalone basis, certain contracts include multiple performance obligations. For such arrangements, we allocate revenue to each performance obligation based on our best estimate of the relative standalone selling price. The standalone selling price for a performance obligation is the price at which we would sell a promised good or service separately to a customer. The primary methods used to estimate standalone selling price are as follows: (i) the expected cost-plus margin approach, under which we forecast our expected costs of satisfying a performance obligation and then add an appropriate margin for that distinct good or service, and (ii) the percent discount off of list price approach.

Contract Costs

We recognize an asset for the incremental costs of obtaining a contract with a customer if we expect the benefit of those costs to be longer than one year. We apply a practical expedient to expense costs as incurred for costs to obtain a contract when the amortization period is one year or less.

Other Items

We do not offer rights of return for our products and services in the normal course of business.

Sales tax collected from customers is excluded from revenue.

The adoption of ASC 606 as of January 1, 2018 resulted in a cumulative positive adjustment to beginning accumulated deficit and accounts receivable of approximately $96,000. The following table sets forth our disaggregated revenue for the three and six months ended June 30, 2019 and 2018:

	Three Months Ended June 30,		Six Months Ended June 30,	
Net Revenue	**2019**	**2018**	**2019**	**2018**
(dollars in thousands)				
Software and royalties	$ 122	$ 871	$ 234	$ 955
Hardware and consumables	27	122	38	122
Services	11	189	166	202
Maintenance	652	703	1,305	1,322
Total revenue	$ 812	$ 1,885	$ 1,743	$ 2,601

Customer Concentration

For the three months ended June 30, 2019, one customer accounted for approximately 27% or $216,000 of our total revenue and had trade receivables at June 30, 2019 of $0. For the six months ended June 30, 2019, two customers accounted for approximately 41% or $717,000 of our total revenue and had trade receivables at June 30, 2019 of $161,000.

For the three months ended June 30, 2018, two customers accounted for approximately 60% or $1,133,000 of our total revenue and had trade receivables at June 30, 2018 of $213,000. For the six months ended June 30, 2018, one customer accounted for approximately 43% or $1,121,000 of our total revenue and had trade receivables at June 30, 2018 of $0.

Recently Issued Accounting Standards

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board ("*FASB*"), or other standard setting bodies, which are adopted by us as of the specified effective date. Unless otherwise discussed, the Company's management believes the impact of recently issued standards not yet effective will not have a material impact on the Company's consolidated financial statements upon adoption.

FASB ASU No. 2016-13. In June 2016, the FASB issued Accounting Standard Update No. 2016-13, *Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments.* ASU No. 2016-13 changes the impairment model for most financial assets and certain other instruments. For trade and other receivables, held-to-maturity debt securities, loans and other instruments, entities will be required to use a new forward-looking "expected loss" model that will replace today's "incurred loss" model and generally will result in the earlier recognition of allowances for losses. For available-for-sale debt securities with unrealized losses, entities will measure credit losses in a manner similar to current practice, except that the losses will be recognized as an allowance. This guidance is effective for fiscal years beginning after December 15, 2019 including interim periods within those fiscal years. The Company is currently evaluating the potential impact of adoption of this standard on its consolidated financial statements.

FASB ASU No. 2018-13. In August 2018, the FASB issued ASU 2018-13, *"Fair Value Measurement (Topic 820) —Disclosure Framework —Changes to the Disclosure Requirements for Fair Value Measurement"* ("*ASU 2018-13*"). The amendments in this update improve the effectiveness of fair value measurement disclosures. ASU 2018-13 is effective for fiscal years ending after December 15, 2019. Early adoption is permitted. The adoption of this standard should be applied to all periods presented. The adoption of this standard will not have a material impact on the Company's consolidated financial statements.

FASB ASU No. 2018-14. In August 2018, the FASB issued ASU 2018-14, *"Compensation —Retirement Benefits —Defined Benefit Plans — General (Subtopic 715-20) —Disclosure Framework —Changes to the Disclosure Requirements for Defined Benefit Plans"* ("*ASU 2018-14*"). The amendments in this update remove defined benefit plan disclosures that are no longer considered cost-beneficial, clarify the specific requirements of disclosures, and add disclosure requirements identified as relevant. ASU 2018-14 is effective for fiscal years ending after December 15, 2020. Early adoption is permitted. The adoption of this standard should be applied to all periods presented. The adoption of this standard will not have a material impact on the Company's consolidated financial statements.

FASB ASU No. 2018-15. In August 2018, the FASB issued ASU 2018-15, *"Intangibles —Goodwill and Other —Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract"* ("*ASU 2018-15*"). The amendments in this update align the requirements for capitalizing implementation costs incurred in a hosting arrangement that is a service contract with the requirements for capitalizing implementation costs incurred to develop or obtain internal-use software (and hosting arrangements that include an internal-use software license). ASU 2018-15 is effective for fiscal years ending after December 15, 2019. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements.

NOTE 3. NET LOSS PER COMMON SHARE

Basic loss per common share is calculated by dividing net loss available to common shareholders for the period by the weighted-average number of common shares outstanding during the period. Diluted loss per common share is calculated by dividing net loss available to common shareholders for the period by the weighted-average number of common shares outstanding during the period, adjusted to include, if dilutive, potential dilutive shares consisting of convertible preferred stock, convertible related party lines of credit, stock options and warrants, calculated using the treasury stock and if-converted methods. For diluted loss per share calculation purposes, the net loss available to common shareholders is adjusted to add back any preferred stock dividends and any interest on convertible debt reflected in the condensed consolidated statement of operations for the respective periods.

The table below presents the computation of basic and diluted loss per share:

(Amounts in thousands except share and per share amounts)	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Numerator for basic and diluted loss per share:				
Net loss	$ (2,548)	$ (2,284)	$ (6,160)	$ (5,869)
Preferred dividends and preferred stock discount accretion	(1,374)	(720)	(2,668)	(1,489)
Net loss available to common shareholders	$ (3,922)	$ (3,004)	$ (8,828)	$ (7,358)
Denominator for basic and dilutive loss per share – weighted-average shares outstanding	103,431,623	95,161,570	100,928,835	94,749,904
Net loss	$ (0.03)	$ (0.02)	$ (0.06)	$ (0.06)
Preferred dividends and preferred stock discount accretion	(0.01)	(0.01)	(0.03)	(0.02)
Basic and diluted loss per share available to common shareholders	$ (0.04)	$ (0.03)	$ (0.09)	$ (0.08)

The following potential dilutive securities have been excluded from the computations of diluted weighted-average shares outstanding, as their effect would have been antidilutive:

Potential Dilutive Securities	Three and Six Months Ended June 30,	
	2019	2018
Related party lines of credit	—	5,432,579
Convertible redeemable preferred stock	42,626,028	26,629,507
Stock options	7,232,346	7,341,093
Warrants	1,813,856	270,000
Total potential dilutive securities	51,672,230	39,673,179

NOTE 4. SELECT BALANCE SHEET DETAILS

Inventory

Inventories of $319,000 as of June 30, 2019 were comprised of work in process of $312,000 representing direct labor costs on in-process projects and finished goods of $7,000 net of reserves for obsolete and slow-moving items of $3,000.

Inventories of $29,000 as of December 31, 2018 were comprised of work in process of $21,000 representing direct labor costs on in-process projects and finished goods of $8,000 net of reserves for obsolete and slow-moving items of $3,000.

Intangible Assets

The carrying amounts of the Company’s patent intangible assets were $76,000 and $82,000 as of June 30, 2019 and December 31, 2018, respectively, which includes accumulated amortization of $583,000 and $577,000 as of June 30, 2019 and December 31, 2018, respectively. Amortization expense for patent intangible assets was $3,000 and $6,000 for the three and six months ended June 30, 2019 and 2018. Patent intangible assets are being amortized on a straight-line basis over their remaining life of approximately 7.00 years. There was no impairment of the Company’s intangible assets during the three and six months ended June 30, 2019 and 2018.

The estimated acquired intangible amortization expense for the next five fiscal years is as follows:

Fiscal Year Ended December 31,	Estimated Amortization Expense ($ in thousands)
2019 (six months)	$ 6
2020	12
2021	12
2022	12
2023	12
Thereafter	22
Totals	$ 76

Goodwill

The Company annually, or more frequently if events or circumstances indicate a need, tests the carrying amount of goodwill for impairment. The Company performs its annual impairment test in the fourth quarter of each year. In December 2018, the Company adopted the provisions of ASU 2017-04, “Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment.” The provisions of ASU 2017-04 eliminate the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge. Instead, entities will record an impairment charge based on the excess of a reporting unit’s carrying amount over its fair value. Entities that have reporting units with zero or negative carrying amounts, will no longer be required to perform a qualitative assessment assuming they pass the simplified impairment test. The Company continues to have only one reporting unit, Identity Management, which at June 30, 2019, had a negative carrying amount of approximately $2,972,000. Based on the results of the Company’s impairment testing, the Company determined that its goodwill was not impaired as of June 30, 2019 and December 31, 2018.

NOTE 5. LEASES

The Company is a party to certain contractual arrangements for office space which meet the definition of leases under ASC 842 – Leases. In accordance with ASC 842, the Company has determined that such arrangements are operating leases and accordingly the Company has, as of January 1, 2019, recorded operating lease right-of-use assets and related lease liability for the present value of the lease payments over the lease terms using the Company’s estimated weighted-average incremental borrowing rate of approximately 14.5%. Such assets and liabilities aggregated approximately $2,265,000 and $2,280,000 as of January 1, 2019, respectively. The Company determined that it had no arrangements representing finance leases.

The Company’s operating leasing arrangements are summarized below:

- The Company’s corporate headquarters is located in San Diego, California, where it occupies 8,511 square feet of office space at an average cost of approximately $28,000 per month. This facility’s lease was entered into by the Company in July 2018. This new lease commenced on November 1, 2018 and terminates on April 30, 2025.

- 1,508 square feet in Ottawa, Province of Ontario, Canada, at a cost of approximately $3,000 per month until the expiration of the lease on March 31, 2021;

- 9,720 square feet in Portland, Oregon, at a cost of approximately $23,000 per month until the expiration of the lease on February 28, 2023; and

- 183 square feet of office space in Mexico City, Mexico, at a cost of approximately $2,000 per month until September 30, 2019.

The above leases contain no residual value guarantees provided by the Company and there are no options to either extend or terminate the leases. The Company is not a party to any subleasing arrangements.

For the three and six months ended June 30, 2019 the Company recorded approximately $182,000 and $349,000, respectively, in lease expense using the straight-line method. Lease expense is comprised of the total lease payments under the lease plus any initial direct costs incurred less any lease incentives received by the lessor amortized ratably using the straight-line method over the lease term. The weighted-average remaining lease term of the Company's operating leases as of June 30, 2019 is 4.95 years. Cash payments under operating leases aggregated approximately $122,000 and $243,000 for the three and six months ended June 30, 2019, respectively, and are included in operating cash flows.

The Company's lease liability was computed using the present value of future lease payments. The Company has utilized the practical expedient regarding lease and non-lease components and combined such components into a single combined component in the determination of the lease liability. The Company has excluded the lease of its office space in Mexico City, Mexico in the determination of the lease liability as of January 1, 2019 as its term is less than 12 months.

At June 30, 2019, future minimum undiscounted lease payments are as follows:

($ in thousands)		
2019 (six months)	$	254
2020		649
2021		642
2022		652
2023		425
Thereafter		519
Total		3,141
Short-term leases not included in lease liability		(6)
Present Value effect on future minimum undiscounted lease payments at June 30, 2019		(954)
Lease liability at June 30, 2019	$	2,181

NOTE 6. MEZZANINE EQUITY

Series C Convertible Redeemable Preferred Stock

On September 10, 2018, the Company filed the Certificate of Designations, Preferences, and Rights of Series C Convertible Redeemable Preferred Stock (the "*Series C COD*") with the Delaware Secretary of State, designating 1,000 shares of the Company's preferred stock, par value $0.01 per share, as Series C Preferred, each share with a stated value of $10,000 per share (the "*Stated Value*"). Shares of Series C Preferred accrue dividends cumulatively and are payable quarterly at a rate of 8% per annum if paid in cash, or 10% per annum if paid by the issuance of shares of Common Stock. Each share of Series C Preferred has a liquidation preference equal to the greater of (i) the Stated Value plus all accrued and unpaid dividends, and (ii) such amount per share as would have been payable had each share been converted into Common Stock immediately prior to the occurrence of a Liquidation Event or Deemed Liquidation Event. Each share of Series C Preferred is convertible into that number of shares of the Company's Common Stock ("*Conversion Shares*") equal to the Stated Value, divided by $1.00, which conversion rate is subject to adjustment in accordance with the terms of the Series C COD. Holders of Series C Preferred may elect to convert shares of Series C Preferred into Conversion Shares at any time. Holders of the Series C Preferred may also require the Company to redeem all or any portion of such holder's shares of Series C Preferred at any time from and after the third anniversary of the issuance date or in the event of the consummation of a Change of Control (as such term is defined in the Series C COD). Subject to the terms and conditions set forth in the Series C COD, in the event the volume-weighted average price of the Company's Common Stock is at least $3.00 per share (subject to adjustment in accordance with the terms of the Series C COD) for at least 20 consecutive trading days, the Company may convert all, but not less than all, issued and outstanding shares of Series C Preferred into Conversion Shares. In addition, in the event of a Change of Control, the Company will have the option to redeem all, but not less than all, issued and outstanding shares of Series C Preferred for 115% of the Liquidation Preference Amount per share. Holders of Series C Preferred will have the right to vote, on an as-converted basis, with the holders of the Company's Common Stock on any matter presented to the Company's stockholders for their action or consideration. Shares of Series C Preferred rank senior to the Company's Common Stock and Series A Preferred, and junior to the Company's Series B Preferred.

On September 10, 2018, the Company offered and sold a total of 890 shares of Series C Preferred at a purchase price of $10,000 per share, and on September 21, 2018, the Company offered and sold an additional 110 shares of Series C Preferred at a purchase price of $10,000 per share (the "*Series C Financing*"). The total gross proceeds to the Company from the Series C Financing were $10,000,000. Issuance costs incurred in conjunction with the Series C Financing were approximately $1,211,000. Such costs have been recorded as a discount on the Series C Preferred stock and will be accreted to the point of earliest redemption which is the third anniversary of the Series C Financing or September 10, 2021 using the effective interest rate method. The accretion of these costs is recorded as a deemed dividend.

The Company had 1,000 shares of Series C Preferred outstanding as of June 30, 2019 and December 31, 2018. The Company issued the holders of Series C Preferred 157,945 and 266,793 shares of Common Stock on March 31, 2019 and June 30, 2019, respectively, as payment of dividends due on these dates.

Guidance for accounting for freestanding financial instruments that contain characteristics of both liabilities and equity are contained in ASC 480, *Distinguishing Liabilities From Equity* and Accounting Series Release 268 ("*ASR 268*") *Redeemable Preferred Stocks.* The Company evaluated the provisions of the Series C Preferred and determined that the provisions of the Series C Preferred grant the holders of the Series C Preferred a redemption right whereby the holders of the Series C Preferred may, at any time after the third anniversary of the Series C Preferred issuance, require the Company to redeem in cash any or all of the holder's outstanding Series C Preferred at an amount equal to the Liquidation Preference Amount ("*Liquidation Preference Amount*"). The Liquidation Preference Amount is defined as the greater of the stated value of the Series C Preferred plus any accrued unpaid interest or such amount per share as would have been payable had each such share been converted into Common Stock. In the event of a Change of Control, the holders of Series C Preferred shall have the right to require the Company to redeem in cash all or any portion of such holder's shares at the Liquidation Preference Amount. The Company has concluded that because the redemption features of the Series C Preferred are outside of the control of the Company, the instrument is to be recorded as temporary or mezzanine equity in accordance with the provisions of ASR 268.

The Company noted that the Series C Preferred Stock instrument was a hybrid instrument that contains several embedded features. In November 2014, the FASB issued ASU 2014-16 to amend ASC 815, "*Derivatives and Hedging*," ("*ASC 815*") and require the use of the whole instrument approach (described below) to determine whether the nature of the host contract in a hybrid instrument issued in the form of a share is more akin to debt or to equity.

The whole instrument approach requires an issuer or investor to consider the economic characteristics and risks of the entire hybrid instrument, including all of its stated and implied substantive terms and features. Under this approach, all stated and implied features, including the embedded feature being evaluated for bifurcation, must be considered. Each term and feature should be weighed based on the relevant facts and circumstances to determine the nature of the host contract. This approach results in a single, consistent determination of the nature of the host contract, which is then used to evaluate each embedded feature for bifurcation. That is, the host contract does not change as each feature is evaluated.

The revised guidance further clarifies that the existence or omission of any single feature, including an investor-held, fixed-price, noncontingent redemption option, does not determine the economic characteristics and risks of the host contract. Instead, an entity must base that determination on an evaluation of the entire hybrid instrument, including all substantive terms and features.

However, an individual term or feature may be weighed more heavily in the evaluation based on facts and circumstances. An evaluation of all relevant terms and features, including the circumstances surrounding the issuance or acquisition of the equity share, as well as the likelihood that an issuer or investor is expected to exercise any options within the host contract, to determine the nature of the host contract, requires judgement.

Using the whole instrument approach, the Company concluded that the host instrument is more akin to debt than equity as the majority of identified features contain more characteristics of debt.

The Company evaluated the identified embedded features of the Series C Preferred host instrument and determined that certain features meet the definition of and contained the characteristics of derivative financial instruments requiring bifurcation at fair value from the host instrument.

Accordingly, the Company has bifurcated from the Series C Preferred host instrument the conversion options, redemption option and participating dividend feature in accordance with the guidance in ASC 815. These bifurcated features aggregated approximately $833,000 at issuance and have been recorded as a discount to the Series C Preferred. Such amount will be accreted to the point of earliest redemption which is the third anniversary of the Series C Financing or September 10, 2021 using the effective interest rate method. The accretion of these features is recorded as a deemed dividend.

For the three and six months ended June 30, 2019, the Company recorded the accretion of debt issuance costs and derivative liabilities aggregating approximately $184,000 and $370,000, respectively, using the effective interest rate method. There was no Series C Preferred outstanding at any time during the three and six months ended June 30, 2018.

The Company reflected the following in Mezzanine Equity for the Series C Preferred Stock as of December 31, 2018 and June 30, 2019:

(amounts in thousands, except share amounts)	Series C Convertible, Redeemable Preferred Shares	Amount	Total
Total Series C Preferred Stock as of December 31, 2018	1,000	$ 8,156	$ 8,156
Accretion of discount – deemed dividend for the three months ended March 31, 2019	—	186	186
Total Series C Preferred Stock as of March 31, 2019	1,000	8,342	8,342
Accretion of discount – deemed dividend for the three months ended June 30, 2019	—	184	184
Total Series C Preferred Stock as of June 30, 2019	1,000	$ 8,526	$ 8,526

NOTE 7. DERIVATIVE LIABILITIES

The Company accounts for its derivative instruments under the provisions of ASC 815, "*Derivatives and Hedging*." Under the provisions of ASC 815, the Company identified embedded features within the Series C Preferred host contract that qualify as derivative instruments and require bifurcation.

The Company determined that the conversion option, redemption option and participating dividend feature contained in the Series C Preferred host instrument required bifurcation. The Company valued the bifurcatable features at fair value. Such liabilities aggregated approximately $833,000 at inception and are classified as current liabilities on the Company's condensed consolidated balance sheet under the caption "Derivative liabilities." The Company revalued these features at each balance sheet date and has recorded any change in fair value in the determination of period net income or loss. Such amounts are recorded in the caption "Change in fair value of derivative liabilities" in the Company's condensed consolidated statements of operations. During the three and six months ended June 30, 2019, the Company recorded a decrease to these derivative liabilities using fair value methodologies of approximately 481,000 and $57,000, respectively. See Note 9 to these condensed consolidated financial statements for a reconciliation of amounts recorded at June 30, 2019.

NOTE 8. EQUITY

The Company's Certificate of Incorporation, as amended, authorizes the issuance of two classes of stock to be designated "Common Stock" and "Preferred Stock." The Preferred Stock may be divided into such number of series and with the rights, preferences, privileges and restrictions as the Board of Directors may determine.

Series A Convertible Preferred Stock

The Company had 37,467 shares of Series A Preferred outstanding as of June 30, 2019 and December 31, 2018. At June 30, 2019 and December 31, 2018, the Company had cumulative undeclared dividends of $0. The Company issued the holders of Series A Preferred 591,803 and 999,633 shares of Common Stock on March 31, 2019 and June 30, 2019, respectively, as payment of dividends due on these dates.

Series B Convertible Preferred Stock

The Company had 239,400 shares of Series B Preferred stock, par value $0.01 per share ("*Series B Preferred*"), outstanding as of June 30, 2019 and December 31, 2018. At June 30, 2019 and December 31, 2018, the Company had cumulative undeclared dividends of approximately $8,000. There were no conversions of Series B Preferred into Common Stock during the three and six months ended June 30, 2019 and 2018.

Common Stock

The following table summarizes Common Stock activity for the six months ended June 30, 2019:

	Common Stock
Shares outstanding at December 31, 2018	98,223,632
Shares issued as payment of stock dividend on Series A Preferred	1,591,436
Shares issued as payment of stock dividend on Series C Preferred	424,738
Shares issued pursuant to option exercises	351,334
Shares issued for cash	5,954,545
Shares outstanding at June 30, 2019	106,545,685

In May 2019, the Company completed a registered direct offering of 5,954,545 shares of its Common Stock at a price of $1.10 per share, resulting in gross proceeds to the Company of approximately $6,550,000. Net proceeds to the Company were approximately $6,095,000 after recognition of offering expenses. The Company intends to use the net proceeds received from the sale of the Common Stock for general corporate purposes.

The shares of Common Stock described above were offered by the Company pursuant to a shelf registration statement filed with the SEC on June 28, 2018 and declared effective on July 10, 2018.

During the six months ended June 30, 2019, the Company issued 351,334 shares of its Common Stock pursuant to the exercise of stock options, resulting in proceeds to the Company of approximately $166,000.

Warrants

The following table summarizes warrant activity for the following periods:

	Warrants	Weighted-Average Exercise Price
Balance at December 31, 2018	1,813,856	$ 0.19
Granted	—	—
Expired/Canceled	—	—
Exercised	—	—
Balance at June 30, 2019	1,813,856	$ 0.19

As of June 30, 2019, warrants to purchase 1,813,856 shares of Common Stock at exercise prices ranging from $0.01 to $1.46 were outstanding. All warrants are exercisable as of June 30, 2019 except for an aggregate of 1,643,856 warrants, which become exercisable only upon the attainment of specified events. Such warrants expire at various dates through September 2028. The intrinsic value of warrants outstanding at June 30, 2019 was approximately $20,000. The Company has excluded from this computation any intrinsic value of the 1,493,856 warrants issued to the Series A Preferred stockholders due to such warrants becoming exercisable only upon conversion of Series A Preferred into shares of Common Stock.

Stock-Based Compensation

The Company's 1999 Stock Award Plan (the "*1999 Plan*") was adopted by the Company's Board of Directors on December 17, 1999. Under the terms of the 1999 Plan, the Company could, originally, issue up to 350,000 non-qualified or incentive stock options to purchase Common Stock of the Company. During the year ended December 31, 2014, the Company subsequently amended and restated the 1999 Plan, whereby it increased the share reserve for issuance to approximately 7.0 million shares of the Company's Common Stock. Subsequently, in February 2018, the Company amended and restated the 1999 Plan, whereby it increased the share reserve for issuance by an additional 2.0 million shares. The 1999 Plan prohibits the grant of stock option or stock appreciation right awards with an exercise price less than fair market value of the Company's Common Stock on the date of grant. The 1999 Plan also generally prohibits the "re-pricing" of stock options or stock appreciation rights, although awards may be bought-out for a payment in cash or the Company's stock. The 1999 Plan permits the grant of stock-based awards other than stock options, including the grant of "full value" awards such as restricted stock, stock units and performance shares. The 1999 Plan permits the qualification of awards under the plan (payable in either stock or cash) as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code. The number of options issued and outstanding and the number of options remaining available for future issuance are shown in the table below. The number of authorized shares available for issuance under the plan at June 30, 2019 was 374,245.

The Company estimates the fair value of its stock options using a Black-Scholes option-valuation model, consistent with the provisions of ASC No. 718*, Compensation – Stock Compensation*. The fair value of stock options granted is recognized to expense over the requisite service period. Stock-based compensation expense is reported in general and administrative, sales and marketing, engineering and customer service expense based upon the departments to which substantially all of the associated employees report and credited to additional paid-in capital. Stock-based compensation expense related to equity options was approximately $181,000 and $347,000 for the three and six months ended June 30, 2019, respectively.

ASC No. 718 requires the use of a valuation model to calculate the fair value of stock-based awards. The Company has elected to use the Black-Scholes option-valuation model, which incorporates various assumptions including volatility, expected life, and interest rates. The Company is required to make various assumptions in the application of the Black-Scholes option-valuation model. The Company has determined that the best measure of expected volatility is based on the historical weekly volatility of the Company's Common Stock. Historical volatility factors utilized in the Company's Black-Scholes computations for the six months ended June 30, 2019 and 2018 ranged from 57% to 84%. The Company has elected to estimate the expected life of an award based upon the SEC approved "simplified method" noted under the provisions of Staff Accounting Bulletin Topic 14. The expected term used by the Company during the six months ended June 30, 2019 and 2018 was 5.17 years. The difference between the actual historical expected life and the simplified method was immaterial. The interest rate used is the risk-free interest rate and is based upon U.S. Treasury rates appropriate for the expected term. The interest rate used in the Company's Black-Scholes calculations for the six months ended June 30, 2019 and 2018 was 2.6%. Dividend yield is zero, as the Company does not expect to declare any dividends on the Company's Common Stock in the foreseeable future.

In addition to the key assumptions used in the Black-Scholes model, the estimated forfeiture rate at the time of valuation is a critical assumption. The Company has estimated an annualized forfeiture rate of approximately 0% for corporate officers, 4.1% for members of the Board of Directors and 6.0% for all other employees. The Company reviews the expected forfeiture rate annually to determine if that percent is still reasonable based on historical experience.

A summary of the activity under the Company's stock option plans is as follows:

	Options	Weighted-Average Exercise Price
Balance at December 31, 2018	7,227,248	$ 1.34
Granted	595,000	$ 0.96
Expired/Cancelled	(238,568)	$ 1.57
Exercised	(351,334)	$ 0.47
Balance at June 30, 2019	7,232,346	$ 1.34

The intrinsic value of options exercisable at June 30, 2019 was approximately $124,000. The aggregate intrinsic value for all options outstanding as of June 30, 2019 was approximately $144,000. The weighted-average grant-date per share fair value of options granted during the six months ended June 30, 2019 was $0.52. The weighted-average grant-date per share fair value of options granted during the six months ended June 30, 2018 was $0.97. At June 30, 2019, the total remaining unrecognized compensation cost related to unvested stock options amounted to approximately $925,000, which will be recognized over a weighted-average period of 2.0 years.

Stock-based compensation related to equity options, including options granted to certain members of the Company's Board of Directors, has been classified as follows in the accompanying condensed consolidated statements of operations (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Cost of revenue	$ 4	$ 5	$ 7	$ 11
General and administrative	97	246	190	462
Sales and marketing	42	63	81	123
Research and development	38	58	69	112
Total	$ 181	$ 372	$ 347	$ 708

NOTE 9. FAIR VALUE ACCOUNTING

The Company accounts for fair value measurements in accordance with ASC 820, "*Fair Value Measurements and Disclosures*," which defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles, and expands disclosures about fair value measurements.

ASC 820 establishes a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements). The three levels of the fair value hierarchy under ASC 820 are described below:

Level 1 Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2 Applies to assets or liabilities for which there are inputs other than quoted prices included within Level 1 that are observable for the asset or liability such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical assets or liabilities in markets with insufficient volume or infrequent transactions (less active markets); or model-derived valuations in which significant inputs are observable or can be derived principally from, or corroborated by, observable market data.

Level 3 Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (supported by little or no market activity).

The following table sets forth the Company's financial assets and liabilities measured at fair value by level within the fair value hierarchy. As required by ASC 820, assets and liabilities are classified in their entirety based on the lowest level of input that is significant to the fair value measurement.

	Fair Value at June 30, 2019			
($ in thousands)	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Pension assets	$ 1,721	$ —	$ —	$ 1,721
Totals	$ 1,721	$ —	$ —	$ 1,721
Liabilities:				
Derivative liabilities	$ 1,008	$ —	$ —	$ 1,008
Totals	$ 1,008	$ —	$ —	$ 1,008

	Fair Value at December 31, 2018			
($ in thousands)	**Total**	**Level 1**	**Level 2**	**Level 3**
Assets:				
Pension assets	$ 1,733	$ —	$ —	$ 1,733
Totals	$ 1,733	$ —	$ —	$ 1,733
Liabilities:				
Derivative liabilities	$ 1,065	$ —	$ —	$ 1,065
Totals	$ 1,065	$ —	$ —	$ 1,065

The Company's German pension plan is funded by insurance contract policies whereby the insurance company guarantees a fixed minimum return. The Company has determined that the pension assets are more appropriately classified within Level 3 of the fair value hierarchy because they are valued using actuarial valuation methodologies which approximate cash surrender value that cannot be corroborated with observable market data. All plan assets are managed in a policyholder pool in Germany by outside investment managers. The investment manager is responsible for the investment strategy of the insurance premiums that Company submits and does not hold individual assets per participating employer. The German Federal Financial Supervisory oversees and supervises the insurance contracts.

The Series C Preferred host instrument (issued in September 2018) had embedded features contained in the host instrument that qualified for derivative liability treatment. The recorded fair market value of these features at June 30, 2019 and December 31, 2018 was approximately $1,008,000 and $1,065,000, respectively which is reflected as a current liability in the condensed consolidated balance sheets as of June 30, 2019 and December 31, 2018. The fair value of the Company's derivative liabilities is classified within Level 3 of the fair value hierarchy because they are valued using pricing models that incorporate management assumptions that cannot be corroborated with observable market data. The Company uses the lattice framework, Monte-Carlo simulations and other fair value methodologies in the determination of the fair value of derivative liabilities.

Some of the aforementioned fair value methodologies are affected by the Company's stock price as well as assumptions regarding the expected stock price volatility over the term of the derivative liabilities in addition to the probability of future events.

The Company monitors the activity within each level and any changes with the underlying valuation techniques or inputs utilized to recognize if any transfers between levels are necessary. That determination is made, in part, by working with outside valuation experts for Level 3 instruments and monitoring market related data and other valuation inputs for Level 1 and Level 2 instruments.

A reconciliation of the Company's pension assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the three months ended June 30, 2019:

($ in thousands)	**Pension Assets**
Balance at March 31, 2019	$ 1,699
Return on plan assets	15
Company contributions and benefits paid, net	(19)
Effect of rate changes	26
Balance at June 30, 2019	$ 1,721

A reconciliation of the Company's pension assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the six months ended June 30, 2019:

($ in thousands)	**Pension Assets**
Balance at December 31, 2018	$ 1,733
Return on plan assets	30
Company contributions and benefits paid, net	(30)
Effect of rate changes	(12)
Balance at June 30, 2019	$ 1,721

A reconciliation of the Company's pension assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the three months ended June 30, 2018:

($ in thousands)	**Pension Assets**
Balance at March 31, 2018	$ 1,852
Return on plan assets	21
Company contributions and benefits paid, net	(3)
Effect of rate changes	(116)
Balance at June 30, 2018	$ 1,754

A reconciliation of the Company's pension assets measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the six months ended June 30, 2018:

($ in thousands)	**Pension Assets**
Balance at December 31, 2017	$ 1,806
Return on plan assets	32
Company contributions and benefits paid, net	(24)
Effect of rate changes	(60)
Balance at June 30, 2018	$ 1,754

A reconciliation of the Company's liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the three months ended June 30, 2019:

($ in thousands)	**Derivative Liabilities**
Balance at March 31, 2019	$ 1,489
Change in fair value included in earnings	(481)
Balance at June 30, 2019	$ 1,008

A reconciliation of the Company's liabilities measured at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows for the six months ended June 30, 2019:

($ in thousands)		Derivative Liabilities
Balance at December 31, 2018	$	1,065
Change in fair value included in earnings		(57)
Balance at June 30, 2019	$	1,008

There were no derivative liabilities at either December 31, 2017 or at any time during the six months ended June 30, 2018. The Company is not a party to any hedge arrangements, commodity swap agreement or any other derivative financial instruments.

NOTE 10. RELATED PARTY TRANSACTIONS

During the year ended December 31, 2018, the Company entered into a professional services agreement with a firm whose managing director is also a member of the Company's Board of Directors. During the first quarter of the fiscal year ended December 31, 2019, the Company recorded and paid the remaining one-half of the aggregate fee of $50,000 related to this professional services agreement.

During the six months ended June 30, 2018, the Company had Convertible Lines of Credit outstanding with two members of the Company's Board of Directors. At June 30, 2018, aggregate borrowing under the Lines of Credit were approximately $5,871,000 net of discount. Such Lines of Credit and all accrued unpaid interest were converted into shares of the Company's Series A Preferred Stock in September 2018, at which time the Lines of Credit were deemed satisfied in full and terminated.

NOTE 11. CONTINGENT LIABILITIES

Employment Agreements

The Company has employment agreements with its Chief Executive Officer and its Chief Technical Officer. The Company may terminate the agreements with or without cause. Subject to the conditions and other limitations set forth in each respective employment agreement, each executive will be entitled to the following severance benefits if the Company terminates the executive's employment without cause or in the event of an involuntary termination (as defined in the employment agreements) by the Company or by the executive:

Under the terms of the agreement, the Chief Executive Officer will be entitled to the following severance benefits if we terminate his employment without cause or in the event of an involuntary termination: (i) a lump sum cash payment equal to twenty-four months' base salary; (ii) continuation of fringe benefits and medical insurance for a period of three years; and (iii) immediate vesting of 50% of outstanding stock options and restricted stock awards. In the event that the Chief Executive Officer's employment is terminated within six months prior to or thirteen months following a change of control (as defined in the employment agreements), the Chief Executive Officer is entitled to the severance benefits described above, except that 100% of the Chief Executive Officer's outstanding stock options and restricted stock awards will immediately vest.

Under the terms of the employment agreement with our Chief Technical Officer, this executive will be entitled to the following severance benefits if we terminate his employment without cause or in the event of an involuntary termination: (i) a lump sum cash payment equal to six months of base salary; and (ii) continuation of their fringe benefits and medical insurance for a period of six months. In the event that his employment is terminated within six months prior to or thirteen months following a change of control (as defined in the employment agreements), he is entitled to the severance benefits described above, except that 100% of his outstanding stock options and restricted stock awards will immediately vest.

Effective September 15, 2017, the employment agreements for the Company's Chief Executive Officer and Chief Technical Officer were amended to extend the term of each executive officer's employment agreement until December 31, 2018, and on January 30, 2019, both agreements were amended again to further extend the term of each executive officer's employment until December 31, 2019.

Litigation

There is no action, suit, proceeding, inquiry or investigation before or by any court, public board, government agency, self-regulatory organization or body pending or, to the knowledge of the executive officers of the Company or any of our subsidiaries, threatened against or affecting the Company, our Common Stock, any of our subsidiaries or of the Company's or our subsidiaries' officers or directors in their capacities as such, in which an adverse decision could have a material adverse effect.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All forward-looking statements included in this report are based on information available to us as of the date hereof and we assume no obligation to update any forward-looking statements. Forward-looking statements involve known or unknown risks, uncertainties and other factors, which may cause our actual results, performance or achievements, or industry results to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements. Factors that could cause or contribute to such differences include but are not limited to those items discussed under "Risk Factors" in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, and in Item 1A of Part II of this Quarterly Report on Form 10-Q (the "Quarterly Report").

The following discussion of the financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements included elsewhere within this Quarterly Report. Fluctuations in annual and quarterly results may occur as a result of factors affecting demand for our products, such as the timing of new product introductions by us and by our competitors and our customers' political and budgetary constraints. Due to such fluctuations, historical results and percentage relationships are not necessarily indicative of the operating results for any future period.

Overview

The Company is a pioneer and leader in the emerging market for biometrically enabled software-based identity management solutions. Using those human characteristics that are unique to us all, the Company creates software that provides a highly reliable indication of a person's identity. The Company's "flagship" product is the patented IWS Biometric Engine®. The Company's products are used to manage and issue secure credentials, including national IDs, passports, driver licenses and access control credentials. The Company's products also provide law enforcement with integrated mug shot, fingerprint LiveScan and investigative capabilities. The Company also provides comprehensive authentication security software using biometrics to secure physical and logical access to facilities or computer networks or internet sites. Biometric technology is now an integral part of all markets the Company addresses, and all the products are integrated into the IWS Biometric Engine.

Recent Developments

In May 2019, the Company completed a registered direct offering of 5,954,545 shares of its Common Stock at a price of $1.10 per share, resulting in gross proceeds to the Company of approximately $6,550,000. Net proceeds to the Company were approximately $6,095,000 after recognition of offering expenses.

Critical Accounting Policies and Estimates

The discussion and analysis of our consolidated financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America ("*GAAP*"). The preparation of these consolidated financial statements in accordance with GAAP requires us to utilize accounting policies and make certain estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingencies as of the date of the consolidated financial statements and the reported amounts of revenue and expense during a fiscal period. The SEC considers an accounting policy to be critical if it is important to a company's financial condition and results of operations, and if it requires significant judgment and estimates on the part of management in its application.

Significant estimates include the evaluation of our ability to continue as a going concern, the allowance for doubtful accounts receivable, deferred tax asset valuation allowances, recoverability of goodwill, assumptions used in the Black-Scholes model to calculate the fair value of share based payments, fair value of financial instruments issued with and affected by the Series C Financing, assumptions used in the application of revenue recognition policies, assumptions used in the derivation of the Company's incremental borrowing rate used in the computation of the Company's operating lease liabilities and assumptions used in the application of fair value methodologies to calculate the fair value of pension assets and obligations.

Critical accounting policies are those that, in management's view, are most important in the portrayal of our financial condition and results of operations. Other than the adoption of ASC 842 "*Leases*" management believes there have been no material changes during the six months ended June 30, 2019 to the critical accounting policies discussed in the Management's Discussion and Analysis of Financial Condition and Results of Operations section of our Annual Report on Form 10-K for the year ended December 31, 2018. See Note 2 "*Significant Accounting Policies and Basis of Presentation*" and Note 5 "*Leases*" for a detailed discussion of this critical accounting policy.

Results of Operations

This management's discussion and analysis of financial condition and results of operations should be read in conjunction with the condensed consolidated financial statements and related notes contained elsewhere in this Quarterly Report.

Comparison of the Three Months Ended June 30, 2019 to the Three Months Ended June 30, 2018

Net Product Revenue	**Three Months Ended June 30,**			
(dollars in thousands)	**2019**	**2018**	**$ Change**	**% Change**
Software and royalties	$ 122	$ 871	$ (749)	(86)%
Percentage of total net product revenue	76%	74%		
Hardware and consumables	$ 27	$ 122	$ (95)	(78)%
Percentage of total net product revenue	17%	10%		
Services	$ 11	$ 189	$ (178)	(94)%
Percentage of total net product revenue	7%	16%		
Total net product revenue	$ 160	$ 1,182	$ (1,022)	(86)%

Software and royalty revenue decreased 86% or approximately $749,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018. This decrease is attributable to lower identification project related revenue of approximately $663,000, lower law enforcement project related revenue of approximately $81,000, lower royalty revenue of approximately $19,000 offset by higher sales of boxed identity management software sold through our distribution channel of approximately $14,000. The decrease in identification project related revenue is reflective of additional software licenses sold into existing identification projects caused by increased end-user utilization during the three months ended June 30, 2018. The decrease in royalty revenue results primarily from lower reported usage from certain customers and the decrease in our law enforcement project revenue resulted from a decrease in the timing of procurement by our law enforcement customers. The increase in boxed identity management software sold through our distribution channel reflects higher procurement from international customers.

Revenue from the sale of hardware and consumables decreased approximately $95,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018 due to a decrease in project related solutions containing hardware and consumables.

Services revenue is comprised primarily of software integration services, system installation services and customer training. Such revenue decreased approximately $178,000 during the three months ended June 30, 2019 as compared to the corresponding period of 2018 due to a decrease in the service element of project related work completed during the three months ended June 30, 2019.

We believe that the period-to-period fluctuations of identity management software revenue in project-oriented solutions are largely due to the timing of government procurement with respect to the various programs we are pursuing. Although no assurances can be given, based on management's current visibility into the timing of potential government procurements and potential partnerships and current pilot programs, we believe that we will see an increase in government procurement and implementations with respect to identity management initiatives during 2019; however, government procurement initiatives, implementations and pilots are frequently delayed and extended and we cannot predict the timing of such initiatives.

During the three months ended June 30, 2019, we continued our efforts to move the Biometric Engine into cloud and mobile markets, and expand our end-user market into non-government sectors, including commercial, consumer and healthcare applications. Our approach to these markets is to partner with larger integrators as resellers who have both the infrastructure and resources to sell into the worldwide market. We rely upon these partners for guidance as to when they expect revenue for our products to begin to ramp. In the second quarter we saw additional customers implement GoVerify ID®, our cloud based mobile biometric authentication software as a service. Management believes that additional implementations will occur throughout the remainder of the year ended December 31, 2019, resulting in increased identities under management.

Maintenance Revenue	**Three Months Ended June 30,**			
(dollars in thousands)	**2019**	**2018**	**$ Change**	**% Change**
Total maintenance revenue	$ 652	$ 703	$ (51)	(7)%

Maintenance revenue was approximately $652,000 for the three months ended June 30, 2019, as compared to approximately $703,000 for the corresponding period in 2018. Identity management maintenance revenue generated from identification software solutions was approximately $328,000 for the three months ended June 30, 2019 as compared to approximately $381,000 during the comparable period in 2018. Law enforcement maintenance revenue was approximately $324,000 and $322,000 for the three months ended June 30, 2019 and 2018, respectively. The decrease of $53,000 in identification software maintenance revenue for the three months ended June 30, 2019 as compared to the corresponding period of 2018 is reflective of the timing of maintenance revenue recognition related to a certain customer combined with the expiration of certain maintenance contracts.

We anticipate growth of our maintenance revenue through the retention of existing customers combined with the expansion of our installed base resulting from the completion of project-oriented work; however, we cannot predict the timing of this anticipated growth.

Cost of Product Revenue:	**Three Months Ended June 30, 2019**	**Three Months Ended June 30, 2018**	**$ Change**	**% Change**
(dollars in thousands)				
Software and royalties	$ 16	$ 2	$ 14	700%
Percentage of software and royalty product revenue	13%	0%		
Hardware and consumables	$ 15	$ 77	$ (62)	(81)%
Percentage of hardware and consumables product revenue	56%	63%		
Services	$ 3	$ 60	$ (57)	(95)%
Percentage of services product revenue	27%	32%		
Total product cost of revenue	$ 34	$ 139	$ (105)	(76)%
Percentage of total product revenue	21%	12%		

The cost of software and royalty product revenue increased approximately $14,000 for the three months ended June 30, 2019 as compared to the corresponding period in 2018 despite lower software and royalty product revenue of approximately $749,000. This increase during the 2019 period as compared to the comparable 2018 period reflects the 2018 period containing third-party software revenue with extremely minimal third-party software costs whereas the 2019 period did not contain similar revenues with related costs.

The cost of hardware and consumables revenue decreased approximately $62,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018 results from lower hardware and consumables revenue of approximately $95,000 due to a decrease in project related solutions containing hardware and consumables components.

The cost of services revenue decreased approximately $57,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018 due to lower service revenue of approximately $178,000. Although changes in costs of services product revenue are sometimes caused by revenue level fluctuations, costs of services can also vary as a percentage of service revenue from period to period depending upon both the level and complexity of professional service resources utilized in the completion of the service element.

Maintenance cost of revenue	**Three Months Ended June 30, 2019**	**Three Months Ended June 30, 2018**	**$ Change**	**% Change**
(dollars in thousands)				
Total maintenance cost of revenue	$ 106	$ 167	$ (61)	(37)%
Percentage of total maintenance revenue	16%	24%		

Cost of maintenance revenue decreased approximately $61,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018. This decrease is reflective of lower maintenance labor costs incurred during the three months ended June 30, 2019 as compared to the corresponding period in 2018 due primarily to the composition of engineering resources used in the provision of maintenance services combined with reductions in headcount in our customer support department.

Product gross profit	**Three Months Ended June 30,**			
(dollars in thousands)	**2019**	**2018**	**$ Change**	**% Change**
Software and royalties	$ 106	$ 869	$ (763)	(88)%
Percentage of software and royalty product revenue	87%	100%		
Hardware and consumables	$ 12	$ 45	$ (33)	(73)%
Percentage of hardware and consumables product revenue	44%	37%		
Services	$ 8	$ 129	$ (121)	(94)%
Percentage of services product revenue	73%	68%		
Total product gross profit	$ 126	$ 1,043	$ (917)	(88)%
Percentage of total product revenue	79%	88%		

Software and royalty gross profit decreased approximately $763,000 for the three months ended June 30, 2019 from the corresponding period in 2018 due primarily to lower software and royalty revenue of approximately $749,000 combined with higher software and royalty cost of revenue of $14,000 for the same period. This increase in software and royalty cost of revenue despite lower software and royalty revenue during the 2019 period as compared to the comparable 2018 period reflects the 2018 period containing third-party software revenue with extremely minimal third-party software costs whereas the 2019 period did not contain similar revenues with related costs. In addition to changes in costs of software and royalty product revenue caused by revenue level fluctuations, costs of products can vary as a percentage of product revenue from period to period depending upon level of software customization and third-party software license content included in product sales during a given period.

Hardware and consumable gross profit decreased approximately $33,000 for the three months ended June 30, 2019 from the corresponding period in 2018 due primarily to lower hardware and consumable revenue of approximately $95,000 combined with lower cost of hardware and consumable revenue of approximately $62,000. These decreases result from a decrease in project related solutions containing hardware and consumable components.

Services gross profit decreased approximately $121,000 for the three months ended June 30, 2019 as compared to the corresponding period in 2018 due to lower service revenue of approximately $178,000 combined with lower service cost of revenue of $57,000 for the three months ended June 30, 2019 as compared to the corresponding period in 2018.

Maintenance gross profit	**Three Months Ended June 30,**			
(dollars in thousands)	**2019**	**2018**	**$ Change**	**% Change**
Total maintenance gross profit	$ 546	$ 536	$ 10	2%
Percentage of total maintenance revenue	84%	76%		

Gross profit related to maintenance revenue increased 2% or approximately $10,000 for the three months ended June 30, 2019 as compared to the corresponding period in 2018. This increase reflects lower maintenance revenue of approximately $51,000 combined with lower cost of maintenance revenue of approximately $61,000 due primarily to headcount reductions combined with lower maintenance labor costs incurred during the same period due to the composition of engineering resources used in the provision of maintenance services. Services gross profit can change due to revenue level fluctuations and from period to period depending upon both the level and complexity of professional service resources utilized in the completion of the service element.

Operating expense	**Three Months Ended June 30,**			
	2019	**2018**	**$ Change**	**% Change**
(dollars in thousands)				
General and administrative	$ 894	$ 970	$ (76)	(8)%
Percentage of total net revenue	110%	51%		
Sales and marketing	$ 934	$ 816	$ 118	14%
Percentage of total net revenue	115%	43%		
Research and development	$ 1,840	$ 1,865	$ (25)	(1)%
Percentage of total net revenue	227%	99%		
Depreciation and amortization	$ 17	$ 11	$ 6	55%
Percentage of total net revenue	2%	1%		

General and Administrative Expense

General and administrative expense is comprised primarily of salaries and other employee-related costs for executive, financial, and other infrastructure personnel. General legal, accounting and consulting services, insurance, occupancy and communication costs are also included with general and administrative expense. The dollar decrease of approximately $76,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018 is comprised of the following major components:

- Decrease in personnel related expense of approximately $5,000 due to headcount reductions.

- Decrease in professional services of approximately $32,000, which includes lower Board of Director fees of approximately $98,000, lower financing related expenses of approximately $33,000, lower legal fees of approximately $2,000 offset by higher patent-related fees of approximately $21,000, higher investor relations fees of approximately $23,000, higher general corporate expense of approximately $2,000, higher audit fees of approximately $26,000 and higher contract service expense of approximately $29,000;

- Increase in travel, insurances, licenses, dues and other costs of approximately $24,000;

- Decrease in rent and office related costs of approximately $12,000; and

- Decrease in stock-based compensation expense of approximately $51,000.

We continue to focus our efforts on achieving additional future operating efficiencies by reviewing and improving upon existing business processes and evaluating our cost structure. We believe these efforts will allow us to continue to gradually decrease our level of general and administrative expense expressed as a percentage of total revenue.

Sales and Marketing

Sales and marketing expense consists primarily of the salaries, commissions, other incentive compensation, employee benefits and travel expense of our sales, marketing, and business development functions. The dollar increase of approximately $118,000 during the three months ended June 30, 2019 as compared to the corresponding period in 2018 is primarily comprised of the following major components:

- Increase in personnel related expense of approximately $76,000, driven primarily by headcount increases;

- Increase in contractor and contract services of approximately $28,000 resulting from increased utilization of certain sales consultants of approximately $20,000, higher contract service expense of approximately $36,000 offset by lower marketing dues and subscription expense of approximately $28,000;

- Increase in travel, trade show expense and office related expense of approximately $22,000;

- Decrease in stock-based compensation expense of approximately $21,000; and

- Increase in our Mexico sales office expense and other of approximately $13,000.

Research and Development

Research and development expense consists primarily of salaries, employee benefits and outside contractors for new product development, product enhancements, custom integration work and related facility costs. Such expense decreased approximately $25,000 for the three months ended June 30, 2019 as compared to the corresponding period in 2018 due primarily to the following major components:

- Decrease in personnel related expense of approximately $61,000 driven primarily by the capitalization to work-in-process inventory of approximately $125,000 offset by the effect of headcount increases of approximately $64,000;
- Increase in contractor fees and contract services of approximately $40,000 for services related to the development of mobile identity management applications;
- Decrease in stock based-compensation expense of approximately $20,000; and
- Increase in office related expense and engineering tools, supplies and other of approximately $16,000.

Our level of expenditures in research and development reflects our belief that to maintain our competitive position in markets characterized by rapid rates of technological advancement, we must continue to invest significant resources in new systems and software development as well as continue to enhance existing products.

Depreciation and Amortization

During the three months ended June 30, 2019 and 2018, depreciation and amortization expense was approximately $17,000 and $11,000, respectively. The relatively small amount of depreciation and amortization reflects the relatively small property and equipment carrying value. The increase is reflective of certain furniture and leasehold improvement asset additions in the fourth quarter of 2018.

Interest Expense (Income), Net

For the three months ended June 30, 2019, we recognized interest expense of approximately $0 and interest income of approximately $31,000. For the three months ended June 30, 2018, we recognized interest expense of approximately $197,000 and interest income of approximately $13,000. The decrease in interest expense of approximately $197,000 for the three months ended June 30, 2019 reflects the conversion of all amounts outstanding under the Company's related-party lines of credit into shares of Series A Preferred stock in September 2018.

Change in Fair Value of Derivative Liabilities

For the three months ended June 30, 2019, we recognized approximately $481,000 from the decrease of derivative liabilities arising from the consummation of the Series C Financing in September 2018. Such decrease was determined by management using fair value methodologies and is included as income under the caption "Change in fair value of derivative liabilities" in our condensed consolidated statement of operations for three months ended June 30, 2019.

Comparison of the Six Months Ended June 30, 2019 to the Six Months Ended June 30, 2018

	Six Months Ended June 30,			
Net Product Revenue	**2019**	**2018**	**$ Change**	**% Change**
(dollars in thousands)				
Software and royalties	$ 234	$ 955	$ (721)	(75)%
Percentage of total net product revenue	53%	74%		
Hardware and consumables	$ 38	$ 122	$ (84)	(68)%
Percentage of total net product revenue	9%	10%		
Services	$ 166	$ 202	$ (36)	(18)%
Percentage of total net product revenue	38%	16%		
Total net product revenue	$ 438	$ 1,279	$ (841)	(66)%

Software and royalty revenue decreased 75% or approximately $721,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018. This decrease is attributable to lower identification project related revenue of approximately $635,000, lower law enforcement project related revenue of approximately $77,000, lower royalty revenue of approximately $29,000 offset by higher sales of boxed identity management software sold through our distribution channel of approximately $20,000. The decrease in identification project related revenue is reflective of additional software licenses sold into existing identification projects caused by increased end-user utilization during the six months ended June 30, 2018. The decrease in royalty revenue results primarily from lower reported usage from certain customers and the decrease in our law enforcement project revenue resulted from a decrease in the timing of procurement by our law enforcement customers. The increase in boxed identity management software sold through our distribution channel reflects higher procurement from international customers.

Revenue from the sale of hardware and consumables decreased approximately $84,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018 due to a decrease in project related solutions containing hardware and consumables and a decrease in replacement hardware procurement by our customers.

Services revenue is comprised primarily of software integration services, system installation services and customer training. Such revenue decreased approximately $36,000 during the six months ended June 30, 2019 as compared to the corresponding period of 2018 due to a decrease in the service element of project related work completed during the six months ended June 30, 2019.

We believe that the period-to-period fluctuations of identity management software revenue in project-oriented solutions are largely due to the timing of government procurement with respect to the various programs we are pursuing. Although no assurances can be given, based on management's current visibility into the timing of potential government procurements and potential partnerships and current pilot programs, we believe that we will see an increase in government procurement and implementations with respect to identity management initiatives during 2019; however, government procurement initiatives, implementations and pilots are frequently delayed and extended and we cannot predict the timing of such initiatives.

During the six months ended June 30, 2019, we continued our efforts to move the Biometric Engine into cloud and mobile markets, and expand our end-user market into non-government sectors, including commercial, consumer and healthcare applications. Our approach to these markets is to partner with larger integrators as resellers who have both the infrastructure and resources to sell into the worldwide market. We rely upon these partners for guidance as to when they expect revenue for our products to begin to ramp. In the second quarter we saw additional customers implement GoVerify ID®, our cloud based mobile biometric authentication software as a service. Management believes that additional implementations will occur throughout the remainder of the year ended December 31, 2019, resulting in increased identities under management.

	Six Months Ended June 30,			
Maintenance Revenue	**2019**	**2018**	**$ Change**	**% Change**
(dollars in thousands)				
Total maintenance revenue	$ 1,305	$ 1,322	$ (17)	(1)%

Maintenance revenue was approximately $1,305,000 for the six months ended June 30, 2019, as compared to approximately $1,322,000 for the corresponding period in 2018. Identity management maintenance revenue generated from identification software solutions was approximately $656,000 for the six months ended June 30, 2019 as compared to approximately $675,000 during the comparable period in 2018. Law enforcement maintenance revenue was approximately $649,000 and $647,000 for the six months ended June 30, 2019 and 2018, respectively. The decrease of $19,000 in identification software maintenance revenue for the six months ended June 30, 2019 as compared to the corresponding period of 2018 is reflective of the timing of maintenance revenue recognition related to a certain customer combined with the expiration of certain maintenance contracts.

We anticipate growth of our maintenance revenue through the retention of existing customers combined with the expansion of our installed base resulting from the completion of project-oriented work; however, we cannot predict the timing of this anticipated growth.

Cost of Product Revenue:	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018	$ Change	% Change
(dollars in thousands)				
Software and royalties	$ 16	$ 8	$ 8	100%
Percentage of software and royalty product revenue	7%	1%		
Hardware and consumables	$ 23	$ 82	$ (59)	(72)%
Percentage of hardware and consumables product revenue	61%	67%		
Services	$ 78	$ 75	$ 3	4%
Percentage of services product revenue	47%	37%		
Total product cost of revenue	$ 117	$ 165	$ (48)	(29)%
Percentage of total product revenue	27%	13%		

The cost of software and royalty product revenue increased approximately $8,000 despite lower software and royalty revenue for the six months ended June 30, 2019 as compared to the corresponding period in 2018 due to the 2019 period containing certain third-party software license costs and the 2018 period containing significant software license revenue with minimal third-party license costs and minimal associated customization costs.

The cost of hardware and consumable product revenue decreased approximately $59,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018 due primarily to lower hardware and consumable product revenue of approximately $84,000 during the 2019 period.

The cost of services revenue increased approximately $3,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018 despite lower service revenue of approximately $36,000 due to the 2019 period containing a higher level and complexity of services resource utilization. In addition to changes in costs of services product revenue caused by revenue level fluctuations, costs of services can vary as a percentage of service revenue from period to period depending upon both the level and complexity of professional service resources utilized in the completion of the service element.

Maintenance cost of revenue	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018	$ Change	% Change
(dollars in thousands)				
Total maintenance cost of revenue	$ 226	$ 390	(164)	(42)%
Percentage of total maintenance revenue	17%	30%		

Cost of maintenance revenue decreased approximately $164,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018. This decrease is reflective of lower maintenance labor costs incurred during the six months ended June 30, 2019 as compared to the corresponding period in 2018 due primarily to the composition of engineering resources used in the provision of maintenance services and reductions in headcount in our customer support department.

Product gross profit	Six Months Ended June 30, 2019	Six Months Ended June 30, 2018	$ Change	% Change
(dollars in thousands)				
Software and royalties	$ 218	$ 947	$ (729)	(77)%
Percentage of software and royalty product revenue	93%	99%		
Hardware and consumables	$ 15	$ 40	$ (25)	(63)%
Percentage of hardware and consumables product revenue	40%	33%		
Services	$ 88	$ 127	$ (39)	31%
Percentage of services product revenue	53%	63%		
Total product gross profit	$ 321	$ 1,114	$ (793)	(71)%
Percentage of total product revenue	73%	87%		

Software and royalty gross profit decreased 77% or approximately $729,000 for the six months ended June 30, 2019 from the corresponding period in 2018 due primarily to lower software and royalty revenue of approximately $721,000 combined with higher software and royalty cost of revenue of $8,000 for the same period. This increase in software and royalty cost of revenue despite lower software and royalty revenue during the 2019 period as compared to the comparable 2018 period reflects the 2018 period containing software revenue with extremely minimal third-party software costs and minimal associated software customization costs whereas the 2019 period did not contain similar revenues with related costs. In addition to changes in costs of software and royalty product revenue caused by revenue level fluctuations, costs of products can vary as a percentage of product revenue from period to period depending upon level of software customization and third -party software license content included in product sales during a given period.

Hardware and consumable gross profit decreased approximately $25,000 for the six months ended June 30, 2019 from the corresponding period in 2018 due primarily to lower hardware and consumable revenue of approximately $84,000 combined with lower cost of hardware and consumable revenue of approximately $59,000. These decreases result from a decrease in project related solutions containing hardware and consumable components.

Services gross profit decreased approximately $39,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018 due to lower service revenue of approximately $36,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018 combined with higher costs of service revenue of approximately $3,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018. In addition to changes in costs of services product revenue caused by revenue level fluctuations, costs of services can vary as a percentage of service revenue from period to period depending upon both the level and complexity of professional service resources utilized in the completion of the service element.

Maintenance gross profit	**Six Months Ended June 30,**			
(dollars in thousands)	**2019**	**2018**	**$ Change**	**% Change**
Total maintenance gross profit	$ 1,079	$ 932	$ 147	16%
Percentage of total maintenance revenue	83%	70%		

Gross profit related to maintenance revenue increased 16% or approximately $147,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018. This increase reflects lower maintenance revenue of approximately $17,000 due to the timing of maintenance revenue recognition combined with lower cost of maintenance revenue of approximately $164,000 due to headcount reductions in our customer service department combined with lower maintenance labor costs incurred during the same period due to the composition of engineering resources used in the provision of maintenance services.

	Six Months Ended June 30,			
Operating expense	**2019**	**2018**	**$ Change**	**% Change**
(dollars in thousands)				
General and administrative	$ 2,001	$ 2,141	$ (140)	(7)%
Percentage of total net revenue	115%	82%		
Sales and marketing	$ 1,939	$ 1,680	$ 259	15%
Percentage of total net revenue	111%	65%		
Research and development	$ 3,614	$ 3,664	$ (50)	(1)%
Percentage of total net revenue	207%	141%		
Depreciation and amortization	$ 36	$ 24	$ 12	50%
Percentage of total net revenue	2%	1%		

General and Administrative Expense

General and administrative expense is comprised primarily of salaries and other employee-related costs for executive, financial, and other infrastructure personnel. General legal, accounting and consulting services, insurance, occupancy and communication costs are also included with general and administrative expense. The dollar decrease of approximately $140,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018 is comprised of the following major components:

- Decrease in personnel related expense of approximately $6,000 due to reductions in headcount;
- Increases in professional services of approximately $19,000, which includes lower Board of Director fees of approximately $88,000, lower auditing fees of approximately $49,000, lower general corporate expense of approximately $10,000, lower legal fees of approximately $3,000 offset by higher patent-related fees of approximately $26,000, higher contractor fees of approximately $11,000, higher investor relations fees of approximately $47,000 and higher contract service expense of approximately $85,000;
- Decrease in travel, insurances, licenses, dues, rent, office related costs and other of approximately $8,000;
- Decrease in financing expense of approximately $33,000; and
- Decrease in stock-based compensation expense related to options and warrants of approximately $112,000.

We continue to focus our efforts on achieving additional future operating efficiencies by reviewing and improving upon existing business processes and evaluating our cost structure. We believe these efforts will allow us to continue to gradually decrease our level of general and administrative expense expressed as a percentage of total revenue.

Sales and Marketing

Sales and marketing expense consists primarily of the salaries, commissions, other incentive compensation, employee benefits and travel expense of our sales, marketing, and business development functions. The dollar increase of approximately $259,000 during the six months ended June 30, 2019 as compared to the corresponding period in 2018 is primarily comprised of the following major components:

- Increase in personnel related expense of approximately $119,000 driven primarily by headcount increases;
- Increase in contractor and contract services of approximately $99,000 resulting from increased utilization of certain sales consultants of approximately $8,000, higher contract service expense of approximately $99,000 offset by lower marketing dues and subscription expense of approximately $8,000;
- Increase in travel, trade show expense and office related expense of approximately $58,000;
- Decrease in stock-based compensation expense of approximately $42,000 ; and
- Increase in our Mexico sales office expense and other of approximately $25,000.

Research and Development

Research and development expense consists primarily of salaries, employee benefits and outside contractors for new product development, product enhancements, custom integration work and related facility costs. Such expense decreased approximately $50,000 for the six months ended June 30, 2019 as compared to the corresponding period in 2018 due primarily to the following major components:

- Increase in personnel related expense of approximately $68,000 which is comprise of higher personnel costs of approximately $258,000 driven primarily by headcount increases offset by approximately $190,000 in capitalized labor into work in process inventory related in in-process projects;

- Decrease in contractor fees and contract services of approximately $81,000 for services related to the accelerated development of mobile identity management applications;

- Decrease in stock based-compensation expense of approximately $43,000 ; and

- Increase in rent, office related expense and engineering tools and supplies of approximately $6,000.

Our level of expenditures in research and development reflects our belief that to maintain our competitive position in markets characterized by rapid rates of technological advancement, we must continue to invest significant resources in new systems and software development as well as continue to enhance existing products.

Depreciation and Amortization

During the six months ended June 30, 2019 and 2018, depreciation and amortization expense was approximately $36,000 and $24,000, respectively. The relatively small amount of depreciation and amortization reflects the relatively small property and equipment carrying value. The increase is reflective of certain furniture and leasehold improvement asset additions in the fourth quarter of 2018.

Interest Expense, Net

For the six months ended June 30, 2019, we recognized interest expense of approximately $0 and interest income of approximately $53,000. For the six months ended June 30, 2018, we recognized interest expense of approximately $386,000 and interest income of approximately $30,000. The decrease in interest expense of approximately $386,000 for the six months ended June 30, 2019 reflects the conversion of all amounts outstanding under the Company’s related-party lines of credit into shares of Series A Preferred stock in September 2018.

Change in Fair Value of Derivative Liabilities

For the six months ended June 30, 2019, we recognized approximately $57,000 from the decrease of derivative liabilities arising from the consummation of the Series C Financing in September 2018. Such decrease was determined by management using fair value methodologies and is included as income under the caption “Change in fair value of derivative liabilities” in our condensed consolidated statement of operations for six months ended June 30, 2019.

LIQUIDITY, CAPITAL RESOURCES AND GOING CONCERN

Historically, our principal sources of cash have included customer payments from the sale of our products, proceeds from the issuance of common and preferred stock and proceeds from the issuance of debt. Our principal uses of cash have included cash used in operations, product development, and payments relating to purchases of property and equipment. We expect that our principal uses of cash in the future will be for product development, including customization of identity management products for enterprise and consumer applications, further development of intellectual property, development of Software-as-a-Service (“*SaaS*”) capabilities for existing products as well as general working capital and capital expenditure requirements. Management expects that, as our revenue grows, our sales and marketing and research and development expense will continue to grow, albeit at a slower rate and, as a result, we will need to generate significant net revenue to achieve and sustain income from operations.

In May 2019, the Company completed a registered direct offering of 5,954,545 shares of its Common Stock at a price of $1.10 per share, resulting in gross proceeds to the Company of approximately $6,550,000. Net proceeds to the Company were approximately $6,095,000 after payment of financing related expense.

Going Concern

Our principal sources of liquidity at June 30, 2019 consisted of approximately $6,734,000 of cash and cash equivalents. At June 30, 2019, we had positive working capital of approximately $3,482,000.

Considering the Common Stock financing completed in May 2019, as well as our projected cash requirements, and assuming we are unable to generate incremental revenue, our available cash may be insufficient to satisfy our cash requirements for the next twelve months from the date of this filing. These factors raise substantial doubt about our ability to continue as a going concern. To address our working capital requirements, management may seek additional equity and/or debt financing through the issuance of additional debt and/or equity securities or may seek strategic or other transactions intended to increase shareholder value. There are currently no formal committed financing arrangements to support our projected cash shortfall, including commitments to purchase additional debt and/or equity securities, or other agreements, and no assurances can be given that we will be successful in raising additional debt and/or equity securities, or entering into any other transaction that addresses our ability to continue as a going concern.

In view of the matters described in the preceding paragraph, recoverability of a major portion of the recorded asset amounts shown in the accompanying consolidated balance sheet is dependent upon continued operations of the Company, which, in turn, is dependent upon the Company's ability to continue to raise capital and generate positive cash flows from operations. However, the Company operates in markets that are emerging and highly competitive. There is no assurance that the Company will be able to obtain additional capital, operate at a profit or generate positive cash flows in the future.

These condensed consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts and classifications of liabilities that might be necessary should the Company be unable to continue as a going concern.

Operating Activities

We used net cash of $5,183,000 in operating activities for the six months ended June 30, 2019 as compared to net cash used of $5,236,000 during the comparable period in 2018. During the six months ended June 30, 2019, net cash used in operating activities consisted of net loss of $6,160,000 and an increase in working capital and other assets and liabilities of $643,000. Those amounts were offset by approximately $334,000 of non-cash costs, including $355,000 in stock-based compensation, $36,000 in depreciation and amortization offset by $57,000 in the change in fair value of derivative liabilities. During the six months ended June 30, 2019, we generated cash of $416,000 from decreases in current assets and generated cash of $226,000 through increases in current liabilities and deferred revenue, excluding debt.

During the six months ended June 30, 2018, net cash used in operating activities consisted of net loss of $5,869,000 and a decrease in working capital and other assets and liabilities of $230,000. Those amounts were offset by approximately $863,000 of non-cash costs, including $717,000 in stock-based compensation, $122,000 in debt issuance cost amortization and beneficial conversion feature amortization and $24,000 in depreciation and amortization. During the six months ended June 30, 2018, we used cash of $102,000 from increases in current assets and used cash of $128,000 through reductions in current liabilities and deferred revenue, excluding debt.

Investing Activities

Net cash used in investing activities was $8,000 for the six months ended June 30, 2019 as compared to net cash used in investing activities of $7,000 for the six months ended June 30, 2018. For the six months ended June 30, 2019, we used cash of $8,000 to fund capital expenditures of software. For the six months ended June 30, 2018, we used cash of $7,000 to fund capital expenditures of computer equipment.

Financing Activities

Cash generated from financing activities was approximately $6,236,000 for the six months ended June 30, 2019 as compared to approximately $124,000 for the comparable period in 2018. During the six months ended June 30, 2019, we generated cash of approximately $166,000 from the exercise of 351,334 stock options resulting, in the issuance of 351,334 shares of our Common Stock, generated cash of $6,550,000 from the sale of 5,954,545 shares of Common Stock offset by financing transaction cost of $455,000 and used cash of approximately $25,000 for the payment of dividends on our Series B Preferred Stock.

For the six months ended June 30, 2018, we generated cash of approximately $149,000 from the exercise of 148,757 stock options, resulting in the issuance of 148,757 shares of our Common Stock and used cash of $25,000 for the payment of dividends on our Series B Preferred Stock.

Inflation

We do not believe that inflation has had a material impact on our historical operations or profitability.

Off-Balance Sheet Arrangements

At June 30, 2019, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance, special purpose or variable interest entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes. In addition, we did not engage in trading activities involving non-exchange traded contracts. As a result, we are not exposed to any financing, liquidity, market or credit risk that could arise if we had engaged in such relationships. We do not have relationships and transactions with persons or entities that derive benefits from their non-independent relationship with us or our related parties except as disclosed elsewhere in this Quarterly Report.

Recently Issued Accounting Standards

Please refer to the section "*Recently Issued Accounting Standards*" in Note 2 of our Notes to the Condensed Consolidated Financial Statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Each of our contracts requires payment in U.S. dollars. We therefore do not engage in hedging transactions to reduce our exposure to changes in currency exchange rates, although in the event any future contracts are denominated in a foreign currency, we may do so in the future. As a result, our financial results are not affected by factors such as changes in foreign currency exchange rates.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of the design and operations of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, as of June 30, 2019. Based on this evaluation, the Company's Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed in the reports submitted under the Securities and Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, including to ensure that information required to be disclosed by the Company is accumulated and communicated to management, including the principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Controls Over Financial Reporting

The Company's Chief Executive Officer and Chief Financial Officer have determined that there have been no changes, in the Company's internal control over financial reporting during the period covered by this report identified in connection with the evaluation described in the above paragraph that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

None.

ITEM 1A. RISK FACTORS

Our results of operations and financial condition are subject to numerous risks and uncertainties described in our Annual Report on Form 10-K for our fiscal year ended December 31, 2018, filed on March 28, 2019. You should carefully consider these risk factors in conjunction with the other information contained in this Quarterly Report. Should any of these risks materialize, our business, financial condition and future prospects could be negatively impacted. As of August 14, 2019, there have been no material changes to the disclosures made in the above referenced Annual Report on Form 10-K.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6 . EXHIBITS

(a) EXHIBITS

31.1	Certification of the Principal Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a)
31.2	Certification of the Principal Financial and Accounting Officer pursuant to Rule 13a-14(a) and 15d-14(a)
32.1	Certification by the Principal Executive Officer and Principal Financial and Accounting Officer pursuant to 18 U.S.C. 1350 as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

SIGNATURES

In accordance with the requirements of the Exchange Act, the registrant caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: August 14, 2019	IMAGEWARE SYTEMS, INC
	By: /s/ S. James Miller, Jr. S. James Miller, Jr. Chief Executive Officer, Chairman and Director (Principal Executive Officer)
Date: August 14, 2019	By: /s/ Wayne Wetherell Wayne Wetherell Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 31.1

Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and pursuant to Rule 13a-14(a) and Rule 15d-14 under the Securities Exchange Act of 1934

I, S. James Miller, Jr., Chief Executive Officer of the Company, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ImageWare Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c. Evaluated the effectiveness of the registrant's disclosure and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluations; and

   d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2019

ImageWare Systems, Inc.

By: /s/ S. James Miller, Jr.
S. James Miller, Jr.
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Certification pursuant to 18 U.S.C. Section 1350 as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 and pursuant to Rule 13a-14(a) and Rule 15d-14 under the Securities Exchange Act of 1934

I, Wayne Wetherell, Chief Financial Officer of the Company, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of ImageWare Systems, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluations: and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting.

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 14, 2019

ImageWare Systems, Inc.

By: /s/ Wayne Wetherell
Wayne Wetherell
Chief Financial Officer (Principal Financial Officer)

Exhibit 32.1

CERTIFICATION

S. James Miller, Jr. Chief Executive Officer of ImageWare Systems, Inc. (the "*Company*"), and Wayne Wetherell, Chief Financial Officer of the Company, each hereby certifies pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "*Exchange Act*"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. Section 1350) that, to the best of his knowledge:

1. The Quarterly Report on Form 10-Q of the Company for the period ended June 30, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Exchange Act; and

2. The information contained in the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2019 fairly presents, in all material respects, the financial condition of the Company at the end of the period covered by the Quarterly Report and the results of operations of the Company for the period covered by the Quarterly Report.

IN WITNESS WHEREOF, the undersigned have set their hands hereto as of the 14th day of August, 2019.

/s/ S. James Miller, Jr.
S. James Miller, Jr.
Chief Executive Officer

/s/ Wayne Wetherell
Wayne Wetherell
Chief Financial Officer
(Principal Financial and Accounting Officer)

A signed original of this written statement required by Section 906 has been provided to ImageWare Systems, Inc. and will be retained by ImageWare Systems, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.