

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2012

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from _____ to _____

Commission File Number: 333-176415

INTEGRITY APPLICATIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

98-0668934

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

102 Ha'Avoda Street
P.O. Box 432
Ashkelon, Israel

(Address of principal executive offices)

L3 78100

(Zip Code)

972 (8) 675-7878

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

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 No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files).

Yes No

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

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

As of May 15, 2012, 5,295,543 shares of the Company's common stock, par value \$0.001 per share, were outstanding.

INTEGRITY APPLICATIONS, INC.

TABLE OF CONTENTS

	<u>Page</u> <u>No.</u>
PART I - FINANCIAL INFORMATION	
<u>Item 1.</u>	
<u>Financial Statements</u>	
<u>Consolidated Balance Sheets</u>	4
<u>Statements of Comprehensive Loss</u>	5
<u>Statements of changes in Stockholders' Equity</u>	6
<u>Consolidated Statements of Cash Flows</u>	12
<u>Notes to Consolidated Financial Statements</u>	13
<u>Item 2.</u>	17
<u>Item 3.</u>	21
<u>Item 4.</u>	21
PART II - OTHER INFORMATION	
<u>Item 1A.</u>	23
<u>Item 6.</u>	23
<u>Signatures</u>	24
<u>Exhibit Index</u>	25

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED BALANCE SHEETS

	US dollars (except share data)		
	2012	March 31, 2011	December 31, 2011
	(unaudited)		
A S S E T S			
Current Assets			
Cash and cash equivalents	1,416,125	1,659,662	1,896,504
Other current assets	64,890	58,107	92,817
Total current assets	1,481,015	1,717,769	1,989,321
Property and Equipment, Net	80,376	59,271	82,868
Funds in Respect of Employee Rights Upon Retirement	127,378	144,754	110,310
Total assets	1,688,769	1,921,794	2,182,499
LIABILITIES AND STOCKHOLDERS' EQUITY			
Current Liabilities			
Credit from banking institutions	-	29,890	-
Accounts payable	101,946	76,221	71,763
Other current liabilities	222,054	239,298	211,278
Total current liabilities	324,000	345,409	283,041
Long-Term Loans from Stockholders	625,837	623,155	606,144
Liability for Employee Rights Upon Retirement	257,329	278,652	241,176
Warrants with Down-Round Protection	65,360	-	83,899
Total liabilities	1,272,526	1,247,216	1,214,260
Stockholders' Equity			
Common Stock of US\$ 0.001 par value ("Common Stock"):			
40,000,000 shares authorized as of March 31, 2012 and December 31, 2011; 5,295,543 shares issued and outstanding as of March 31, 2012 and December 31, 2011	5,296	4,952	5,296
Additional paid in capital	13,552,346	11,420,704	13,457,828
Accumulated other comprehensive income (loss)	11,073	(57,633)	22,634
Deficit accumulated during the development stage	(13,152,472)	(10,693,445)	(12,517,519)
Total stockholders' equity	416,243	674,578	968,239
Total liabilities and stockholders' equity	1,688,769	1,921,794	2,182,499

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

	US dollars (except share data)			
	Three month period ended		Year ended	Cumulative
	March 31,		December 31,	period
	2012	2011 ^(*)	2011	from
	(unaudited)			September 30,
				2001 (date of
				inception)
				through
				March 31,
				2012 ^(*)
				(unaudited)
Research and development expenses, net	445,066	373,483	1,789,301	9,000,780
General and administrative expenses	202,935	165,638	544,145	2,364,669
Other income	-	-	-	(912)
Operating loss	648,001	539,121	2,333,446	11,364,537
Financing (income) expenses, net	(13,048)	1,143	30,893	1,787,935
Loss for the period	634,953	540,264	2,364,339	13,152,472
Other comprehensive (income) loss:				
Foreign currency translation adjustment	11,561	41,215	(39,052)	(11,073)
Comprehensive loss	646,514	581,479	2,325,287	13,141,399
Loss per share (Basic and Diluted) (Note 4)	0.12	0.11	0.46	
Weighted average number of shares outstanding (Basic and Diluted) (Note 4)	5,295,543	4,855,445	5,091,330	

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (*)

	US Dollars (except share data)					
	Common Stock			Accumulated other comprehensive loss	Deficit accumulated during development stage	Total stockholders equity (deficit)
	Number of shares	Amount	Additional paid in capital			
September 30, 2001 (date of inception)						
2,136,307 Common Stock of US\$ 0.001 per share issued for cash	2,136,307	2,136	38,306	-	-	40,442
Loss for the period	-	-	-	-	(63,293)	(63,293)
Other comprehensive loss	-	-	-	(5)	-	(5)
Comprehensive loss						(63,298)
Balance as of December 31, 2002	2,136,307	2,136	38,306	(5)	(63,293)	(22,856)
Loss for the year	-	-	-	-	(350,290)	(350,290)
Other comprehensive loss	-	-	-	(15,035)	-	(15,035)
Comprehensive loss						(365,325)
Balance as of December 31, 2003	2,136,307	2,136	38,306	(15,040)	(413,583)	(388,181)
Loss for the year	-	-	-	-	(288,233)	(288,233)
Other comprehensive loss	-	-	-	(15,069)	-	(15,069)
Comprehensive loss						(303,302)
Issuance of 42,727 Common Stock for cash at US\$ 1.76 per share on March 16, 2004	42,727	43	74,957	-	-	75,000
Issuance of 72,773 Common Stock for cash of US\$ 1.72 per share on November 25, 2004	72,773	73	128,783	-	-	128,856
Balance as of December 31, 2004	2,251,807	2,252	242,046	(30,109)	(701,816)	(487,627)

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (*) (cont.)

	US Dollars (except share data)					
	Common Stock			Accumulated other comprehensive loss	Deficit accumulated during development stage	Total stockholders equity (deficit)
	Number of shares	Amount	Additional paid in capital			
Balance as of January 1, 2005	2,251,807	2,252	242,046	(30,109)	(701,816)	(487,627)
Loss for the year	-	-	-	-	(1,055,594)	(1,055,594)
Other comprehensive income	-	-	-	8,542	-	8,542
Comprehensive loss						<u>(1,047,052)</u>
Issuance of 218,281 Common Stock for cash of US\$ 1.72 per share on January 14, 2005	218,281	218	374,782	-	-	375,000
Issuance of 291,051 Common Stock for cash of US\$ 1.72 per share on April 5, 2005	291,051	291	499,709	-	-	500,000
Issuance of 59,389 Common Stock for cash of US\$ 3.37 per share on May 31, 2005	59,389	60	199,940	-	-	200,000
Stock-based compensation	52,147	52	189,564	-	-	189,616
Balance as of December 31, 2005	<u>2,872,675</u>	<u>2,873</u>	<u>1,506,041</u>	<u>(21,567)</u>	<u>(1,757,410)</u>	<u>(270,063)</u>
Loss for the year	-	-	-	-	(1,282,842)	(1,282,842)
Other comprehensive loss	-	-	-	(57,127)	-	(57,127)
Comprehensive loss						<u>(1,339,969)</u>
Issuance of 87,315 Common Stock for cash of US\$ 1.47 per share on January 26, 2006	87,315	87	128,118	-	-	128,205
Issuance of 1,899 Common Stock for cash of US\$ 3.63 per share on March 31, 2006	1,899	2	6,888	-	-	6,890
Issuance of 13,786 Common Stock for cash of US\$ 3.63 per share on June 16, 2006	13,786	14	49,986	-	-	50,000
Issuance of 14,113 Common Stock for cash of US\$ 3.63 per share on June 30, 2006	14,113	14	51,166	-	-	51,180
Issuance of 51,207 Common Stock for cash of US\$ 3.91 per share on August 15, 2006	51,207	51	199,949	-	-	200,000
Issuance of 301,948 Common Stock for cash of US\$ 4.31 per share on October 5, 2006	301,948	302	1,299,698	-	-	1,300,000
Issuance of 348,402 Common Stock for cash of US\$ 4.31 per share on December 14, 2006	348,402	349	1,372,146	-	-	1,372,495
Stock-based compensation	63,395	63	277,434	-	-	277,497
Balance as of December 31, 2006	<u>3,754,740</u>	<u>3,755</u>	<u>4,891,426</u>	<u>(78,694)</u>	<u>(3,040,252)</u>	<u>1,776,235</u>

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (*) (cont.)

	US Dollars (except share data)						
	Common Stock		Additional paid in capital	Accumulated other comprehensive income (loss)	Receivable in respect of stock issuance	Deficit accumulated during development stage	Total stockholders equity (deficit)
	Number of shares	Amount					
Balance as of January 1, 2007	3,754,740	3,755	4,891,426	(78,694)	-	(3,040,252)	1,776,235
Loss for the year	-	-	-	-	-	(1,593,205)	(1,593,205)
Other comprehensive income	-	-	-	84,528	-	-	84,528
Comprehensive loss							<u>(1,508,677)</u>
Stock-based compensation	28,707	29	274,630	-	-	-	274,659
Balance as of December 31, 2007	<u>3,783,447</u>	<u>3,784</u>	<u>5,166,056</u>	<u>5,834</u>	<u>-</u>	<u>(4,633,457)</u>	<u>542,217</u>
Loss for the year	-	-	-	-	-	(1,528,981)	(1,528,981)
Other comprehensive income	-	-	-	110,134	-	-	110,134
Comprehensive loss							<u>(1,418,847)</u>
Issuance of 61,989 Common Stock for cash of US\$ 5.52 per share on September 27, 2008	61,989	62	341,938	-	-	-	342,000
Issuance of 104,220 Common Stock for cash of US\$ 5.52 per share on October 7, 2008	104,220	104	574,896	-	(75,000)	-	500,000
Stock-based compensation	-	-	84,380	-	-	-	84,380
Balance as of December 31, 2008	<u>3,949,656</u>	<u>3,950</u>	<u>6,167,270</u>	<u>115,968</u>	<u>(75,000)</u>	<u>(6,162,438)</u>	<u>49,750</u>

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (DEFICIT) (*) (cont.)

	US Dollars (except share data)						Total stockholders equity (deficit)
	Common Stock		Additional paid in capital	Accumulated other comprehensive income (loss)	Receivable in respect of stock issuance	Deficit accumulated during development stage	
	Number of shares	Amount					
Balance as of January 1, 2009	3,949,656	3,950	6,167,270	115,968	(75,000)	(6,162,438)	49,750
Loss for the year	-	-	-	-	-	(1,202,296)	(1,202,296)
Other comprehensive loss	-	-	-	(13,367)	-	-	(13,367)
Comprehensive loss							<u>(1,215,663)</u>
Issuance of 50,342 Common Stock for cash of US\$ 6.02 per share in January 2009	50,342	50	302,950	-	-	-	303,000
Repayment of receivable in respect of stock issuance	-	-	-	-	75,000	-	75,000
Stock-based compensation	-	-	12,171	-	-	-	12,171
Balance as of December 31, 2009	<u>3,999,998</u>	<u>4,000</u>	<u>6,482,391</u>	<u>102,601</u>	<u>-</u>	<u>(7,364,734)</u>	<u>(775,742)</u>
Loss for the year	-	-	-	-	-	(2,788,446)	(2,788,446)
Other comprehensive loss	-	-	-	(119,019)	-	-	(119,019)
Comprehensive loss							<u>(2,907,465)</u>
Issuance of 530,600 Common Stock for cash of US\$ 6.25 per share in December 2010, net of related expenses	530,600	531	2,356,501	-	-	-	2,357,032
Stock-based interest compensation to convertible notes holders	194,391	194	1,214,749	-	-	-	1,214,943
Conversion of convertible notes	119,586	120	694,676	-	-	-	694,796
Stock-based compensation	-	-	14,575	-	-	-	14,575
Balance as of December 31, 2010	<u>4,844,575</u>	<u>4,845</u>	<u>10,762,892</u>	<u>(16,418)</u>	<u>-</u>	<u>(10,153,180)</u>	<u>598,139</u>

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (*) (cont.)

US Dollars (except share data)							
	Common Stock		Additional paid in capital	Accumulated other comprehensive loss	Receivable in respect of stock issuance	Deficit accumulated during development stage	Total stockholders equity (deficit)
	Number of shares	Amount					
Balance as of January 1, 2011	4,844,575	4,845	10,762,892	(16,418)	-	(10,153,180)	598,139
Loss for the year	-	-	-	-	-	(2,364,339)	(2,364,339)
Other comprehensive income	-	-	-	39,052	-	-	39,052
Comprehensive loss							<u>(2,325,287)</u>
Issuance of 16,320 Common Stock for cash of US\$ 6.25 per share in January 31, 2011, net of related expenses	16,320	16	83,164	-	-	-	83,180
Issuance of 90,768 Common Stock for cash of US\$ 6.25 per share in March 31, 2011, net of related expenses	90,768	91	479,810	-	-	-	479,901
Issuance of 40,000 Common Stock for cash of US\$ 6.25 per share in April 29, 2011, net of related expenses	40,000	40	191,682	-	-	-	191,722
Issuance of 34,200 Common Stock for cash of US\$ 6.25 per share in May 31, 2011, net of related expenses	34,200	34	179,992	-	-	-	180,026
Issuance of 269,680 Common Stock for cash of US\$ 6.25 per share on July 29, 2011, net of related expenses	269,680	270	1,466,115	-	-	-	1,466,385
Fair value of warrants with down-round protection issued in connection with Common Stock issuances	-	-	(83,899)	-	-	-	(83,899)
Stock-based compensation	-	-	378,072	-	-	-	378,072
Balance as of December 31, 2011	<u>5,295,543</u>	<u>5,296</u>	<u>13,457,828</u>	<u>22,634</u>	<u>-</u>	<u>(12,517,519)</u>	<u>968,239</u>

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY (*) (cont.)

US Dollars (except share data)							
	Common Stock		Additional paid in capital	Accumulated	Receivable in respect of stock issuance	Deficit accumulated	Total stockholders equity (deficit)
	Number of shares	Amount		other comprehensive loss		during development stage	
Balance as of January 1, 2012	5,295,543	5,296	13,457,828	22,634	-	(12,517,519)	968,239
Loss for the period of three months	-	-	-	-	-	(634,953)	(634,953)
Other comprehensive loss	-	-	-	(11,561)	-	-	(11,561)
Comprehensive loss							(646,514)
Stock-based compensation	-	-	94,518	-	-		94,518
Balance as of March 31, 2012	<u>5,295,543</u>	<u>5,296</u>	<u>13,552,346</u>	<u>11,073</u>	<u>-</u>	<u>(13,152,472)</u>	<u>416,243</u>

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	US dollars			
	Three month period ended March 31,		Year ended December 31,	Cumulative period from September 30, 2001 (date of inception) through March 31, 2012 ^(*)
	2012	2011	2011	2012 ^(*)
	(unaudited)			(unaudited)
Cash flows from operating activities:				
Loss for the period	(634,953)	(540,264)	(2,364,339)	(13,152,472)
Adjustments to reconcile loss for the period to net cash used in operating activities:				
Depreciation	6,497	4,295	23,045	138,983
Increase in liability for employee rights upon retirement	9,215	14,582	1,127	232,917
Stock-based compensation	94,518	94,837	378,072	1,325,421
Stock-based interest compensation to convertible notes holders	-	-	-	1,214,943
Change in the fair value of warrants with down-round protection	(18,539)	-	-	(18,539)
Linkage difference on principal of loans from stockholders (**)	2,383	(14,458)	24,934	179,432
Interest on convertible notes	-	-	-	78,192
Gain on sale of property and equipment	-	-	-	(912)
Gain from trading marketable securities	-	-	-	(12,920)
Changes in assets and liabilities:				
Decrease (increase) in other current assets	30,575	29,271	(23,968)	(52,712)
Increase in accounts payable	28,627	64,902	64,697	101,769
Increase (decrease) in other current liabilities	5,872	(20,493)	(19,681)	213,258
Net cash used in operating activities	<u>(475,805)</u>	<u>(367,328)</u>	<u>(1,916,113)</u>	<u>(9,752,640)</u>
Cash flows from investment activities:				
Decrease (increase) in funds in respect of employee rights upon retirement	(13,834)	(8,522)	14,436	(116,638)
Purchase of property and equipment	(1,671)	(5,069)	(54,619)	(210,444)
Proceeds from sale of property and equipment	-	-	-	4,791
Investment in marketable securities	-	-	-	(388,732)
Proceeds from sale of marketable securities	-	-	-	406,995
Short-term loan granted to related party, net of repayments	-	-	-	(14,252)
Net cash used in investment activities	<u>(15,505)</u>	<u>(13,591)</u>	<u>(40,183)</u>	<u>(318,280)</u>
Cash flows from financing activities				
Credit from banking institutions (repayment)	-	10,326	(18,669)	(6,218)
Proceeds from issuance of convertible notes	-	-	-	1,144,000
Repayment of convertible notes	-	-	-	(527,396)
Proceeds from issuance of Common Stock, net of issuance expenses	-	563,081	2,401,214	10,406,380
Proceeds from stockholders loans	-	-	-	347,742
Net cash provided by financing activities	<u>-</u>	<u>573,407</u>	<u>2,382,545</u>	<u>11,364,508</u>
Effect of exchange rate changes on cash and cash equivalents	10,931	(27,074)	(23,993)	122,537
Increase (decrease) in cash and cash equivalents	(480,379)	165,414	402,256	1,416,125
Cash and cash equivalents at beginning of the period	1,896,504	1,494,248	1,494,248	-
Cash and cash equivalents at end of the period	<u>1,416,125</u>	<u>1,659,662</u>	<u>1,896,504</u>	<u>1,416,125</u>

Supplementary information on financing activities not involving cash flows:

Fair value of warrants with down-round protection issued in connection with Common Stock issuances	-	-	83,899	-
--	---	---	--------	---

(*) As described in Note 1A, the financial statements were retroactively restated to reflect the historical financial statements of the subsidiary A.D. Integrity Applications Ltd., which merged with a subsidiary of the Company on July 15, 2010, as part of a structural reorganization of the Group.

(**) Represents charges taken to reflect changes in the Israeli Consumer Price index with respect to loans from stockholders that are denominated in New Israeli Shekels and linked to the Israeli Consumer Price Index.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 – GENERAL

A. Integrity Applications, Inc. (the "Company") was incorporated on May 18, 2010, under the laws of the State of Delaware. On July 15, 2010, Integrity Acquisition Corp. Ltd. (hereinafter: "Integrity Acquisition"), a wholly owned Israeli subsidiary of the Company which was established on May 23, 2010, completed a merger with A.D. Integrity Applications Ltd. (hereinafter: "Integrity Israel"), an Israeli corporation which was previously held by the stockholders of the Company. Pursuant to the merger, all stockholders, option holders and warrant holders of Integrity Israel received an equal number of shares, options and warrants of the Company, as applicable in exchange for their shares, options and/or warrants in Integrity Israel. Following the merger, Integrity Israel remained a wholly-owned subsidiary of the Company. As the merger transaction constitutes a structural reorganization, the merger has been accounted for at historical cost in a manner similar to a pooling of interests. On this basis, stockholders' equity (deficit) has been retroactively restated such that each ordinary share of Integrity Israel is reflected in stockholders' equity as a share of Common Stock of the Company as of the date of the issuance thereof by Integrity Israel. In addition, the historical financial statements of the Company for all dates and periods prior to May 18, 2010 have been retroactively restated to reflect the activities of Integrity Israel.

In November 2011, the Company completed registration of part of its shares with the US Securities and Exchange Commission (SEC) on Form S-1 under the Securities Act of 1933.

Integrity Israel was incorporated in 2001 and commenced its operations in 2002. Integrity Israel, a medical device company, focuses on the design, development and commercialization of non-invasive glucose monitoring devices for home use by persons suffering with diabetes.

Since its inception, Integrity Israel has devoted substantially all of its efforts to business planning, research and development and raising capital, and has not yet generated any revenues. Accordingly, Integrity Israel (and therefore the Company) is considered to be in the development stage as defined in Financial Accounting Standards Board ("FASB") Accounting Standards Codification (ASC) Topic 915, "*Development Stage Entities*".

B. Going concern uncertainty

Since its incorporation (May 18, 2010), the Company has not had any operations other than those carried out by Integrity Israel. The development and commercialization of Integrity Israel's product is expected to require additional substantial expenditures. Integrity Israel has not yet generated any revenues from its operations to fund its activities, and therefore is dependent upon external sources for financing its operations. There can be no assurance that Integrity Israel and, therefore, the Company will succeed in obtaining the necessary financing to continue their operations. Since inception, Integrity has incurred accumulated losses of US\$ 13,152,472 and cumulative negative operating cash flow of US\$ 9,752,640. These factors raise substantial doubt about Integrity Israel and the Company's ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty. During 2010, the Company raised funds via the issuance of Common Stock (including via the conversion of convertible notes), in a total amount of approximately US\$4 million (before related expense). During 2011, the Company raised funds via the issuance of Common Stock in a total amount of approximately US\$ 2.4 million (net of related expenses). The Company may need to secure additional capital in the future in order to meet its anticipated liquidity needs. The Company would expect to secure additional capital primarily through the sale of additional Common Stock or other equity securities and/or debt financing. Funds from these sources may not be available to the Company on acceptable terms, if at all, and they cannot give assurance that they will be successful in securing such additional capital.

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

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (cont.)

NOTE 1 – GENERAL (cont.)

C. Risk factors

The Company and Integrity Israel (collectively, the "Group") have a limited operating history and face a number of risks, including uncertainties regarding finalization of the development process, demand and market acceptance of the Group's products, the effects of technological changes, competition and the development of other new products by competitors. Additionally, other risk factors also exist, such as the ability to manage growth and the effect of planned expansion of operations on the Group's future results.

In addition, the Group expects to continue incurring significant operating costs and losses in connection with the development of its product and increased marketing efforts.

As mentioned above, the Group has not yet generated any revenues from its operations to fund its activities and therefore the Group is dependent on the receipt of additional funding from its stockholders and investors in order to continue as a going concern.

D. Use of estimates in the preparation of financial statements

The preparation of condensed consolidated financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from those estimates.

As applicable to these consolidated financial statements, the most significant estimates and assumptions relate to stock based compensation and to the going on concern assumption.

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

A. Basis of presentation

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and notes required by generally accepted accounting principles for complete financial statements.

In the opinion of management, the unaudited interim financial statements furnished herein include all adjustments necessary (consisting of normal recurring adjustments) for a fair presentation of the Company's financial position at March 31, 2012 and the results of its operations and cash flow for the three month period then ended.

Interim financial statements are prepared on a basis consistent with the Company's annual financial statements. Results of operations for the three month period ended March 31, 2012 are not necessarily indicative of the operating results that may be expected for the year ending December 31, 2012.

The consolidated balance sheet as of December 31, 2011 was derived from the audited financial statements at that date but does not include all of the information and notes required by accounting principles generally accepted in the United States of America for complete financial statements. For further information, refer to the consolidated financial statements and notes thereto included in the Company's annual report on Form 10-K for the year ended December 31, 2011.

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (cont.)

NOTE 2 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (cont.)

B. Recently issued accounting pronouncements

1. ASC Topic 220, "Comprehensive Income"

In June 2011, the Financial Accounting Standards Board issued Accounting Standard Update No. 2011-05, "*Comprehensive Income (Topic 220) - Presentation of Comprehensive Income*" ("ASU 2011-05"). ASU 2011-05 eliminates the option to present the components of other comprehensive income as part of the statement of equity and requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements.

ASU 2011-05 will be effective for fiscal years, and interim periods within those years, beginning after December 15, 2011 (fiscal year 2012 for the Company) and should be applied retrospectively.

2. ASC Topic 210, "Balance Sheet"

In December 2011, the FASB issued Accounting Standard Update (ASU) 2011-11, "Balance Sheet (Topic 210) - *Disclosures about Offsetting Assets and Liabilities*" (ASU 2011-11). ASU 2011-11, enhance disclosures about financial instruments and derivative instruments that are either offset in accordance with the Accounting Standards Codification or are subject to an enforceable master netting arrangement or similar agreement.

The amended guidance will be effective for annual reporting periods beginning on or after January 1, 2013, and interim periods within those annual periods (fiscal year 2013 for the Company) and should be applied retrospectively to all comparative periods presented.

The Company is currently evaluating the impact that the adoption of ASU 2011-11 would have on its consolidated financial statements, if any.

NOTE 3 – EVENTS DURING THE REPORTED PERIOD

On March 12, 2012, the Company granted to Company's employees options to purchase 17,500 shares of company's Common Stock at an exercise price of US\$6.25 per share. All options were granted in accordance with and subject to the terms of the Company's 2010 incentive Compensation Plan.

INTEGRITY APPLICATIONS, INC.
(A Development Stage Company)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (cont.)

NOTE 4 – LOSS PER SHARE

Basic loss per share is computed by dividing net loss by the weighted average number of shares outstanding during the year.

The loss and the weighted average number of shares used in computing basic and diluted loss per share for the three month period ended March 31, 2012 and 2011 and for the year ended December 31, 2011, are as follows:

	US dollars		
	Three month period ended March 31, 2012	2011	Year ended December 31, 2011
	(unaudited)		
Loss used for the period	634,953	540,264	2,364,339
	Number of shares		
	March 31, 2012	2011	December 31, 2011
Number of shares:			
Weighted average number of shares used in the computation of basic and diluted earnings per share	5,295,543	4,855,445	5,091,330
Total weighted average number of ordinary shares related to outstanding options and warrants excluded from the calculations of diluted loss per share (*)	600,232	113,470	582,732

(*) All outstanding stock options and warrants have been excluded from the calculation of the diluted net loss per share for all the reported periods, since the effect of the shares issuable with respect of these instruments was anti-dilutive.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operation.

Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements. These forward looking statements include statements about our expectations, beliefs or intentions regarding our product development efforts, business, financial condition, results of operations, strategies or prospects. All statements other than statements of historical fact included in this Quarterly Report on Form 10-Q, including statements regarding our future activities, events or developments, including such things as future revenues, product development, market acceptance, responses from competitors, capital expenditures (including the amount and nature thereof), business strategy and measures to implement strategy, competitive strengths, goals, expansion and growth of our business and operations, plans, references to future success, projected performance and trends, and other such matters, are forward-looking statements. The words "believe," "expect," "intend," "anticipates," or "propose," and other similar words and phrases, are intended to identify forward-looking statements. The forward-looking statements made in this Quarterly Report on Form 10-Q are based on certain historical trends, current conditions and expected future developments as well as other factors we believe are appropriate in the circumstances. These statements relate only to events as of the date on which the statements are made and we undertake no obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law. All of the forward-looking statements made in this prospectus are qualified by these cautionary statements and there can be no assurance that the actual results anticipated by us will be realized or, even if substantially realized, that they will have the expected consequences to or effects on us or our business or operations. Whether actual results will conform to our expectations and predictions is subject to a number of risks and uncertainties that may cause actual results to differ materially. Risks and uncertainties, the occurrence of which could adversely affect our business, include the risks identified under the caption "Risk Factors" included in the prospectus that forms part of our registration statement on Form S-1 (Registration No. 333-176415), as amended from time to time (the "Registration Statement"), which was declared effective by the Securities and Exchange Commission (the "SEC") on November 14, 2011.

The following discussion should be read in conjunction with the condensed consolidated financial statements and the notes thereto included in Item 1 of this Quarterly Report on Form 10-Q.

Overview

Integrity Applications, Inc. is a development stage medical device company focused on the design, development and commercialization of non-invasive glucose monitoring devices for use by persons suffering from diabetes. Our wholly-owned Israeli subsidiary, A.D. Integrity Applications Ltd., was founded in 2001 with a mission to develop, produce and market non-invasive glucose monitors for home use by diabetics. We have developed a non-invasive blood glucose monitor, the GlucoTrack DF-F glucose monitoring device, which is designed to help people with diabetes obtain blood glucose level readings without the pain, inconvenience, cost and difficulty of conventional (invasive) spot finger stick devices. The GlucoTrack DF-F utilizes a patented combination of ultrasound, electromagnetic and thermal technologies to obtain blood glucose measurements in less than one minute via a small sensor that is clipped onto one's earlobe and connected to a small, handheld control and display unit, all without drawing blood. Integrity Israel conducted early clinical trials involving over 5,000 readings from approximately 350 patients over the last six years. Clinical data collected during 2009 at the Soroka University Medical Center in Be'er Sheva, Israel indicate a positive correlation between GlucoTrack DF-F readings and those obtained from conventional invasive devices. More specifically, a set of early clinical studies conducted on 116 subjects of various weights, ages, diabetes types and genders involved 2,364 measurements, of which 96% were within the clinically acceptable zones of the CEG (zones A and B). Similarly, approximately 97% of the 1,306 measurements in an at home study of 24 participants were within clinically acceptable zones A and B of the CEG. Measurements are clinically acceptable, compared to a referenced invasive device, when the variance, if any, between the devices would have no worse than a benign effect on the patients. The results of these pre-clinical trials may not be indicative of future results due to their small sample sizes. We began the performance and safety stage of formal clinical trials in Israel in connection with our CE Mark application in March 2012. We expect to begin clinical trials in the United States by late 2012 or early 2013, if our clinical trial protocol is approved by the FDA.

The GlucoTrack DF-F has not yet been approved for commercial sale in the United States, the European Union or any other jurisdiction. There can be no assurance that approval for commercial sale in any jurisdiction will be obtained.

We have not yet generated any revenues from our operations and have incurred losses of US\$ 13,152,472 from inception through March 31, 2012 and cumulative negative operating cash flow of US\$ 9,752,640. We are dependent upon external sources for financing our operations and there can be no assurance that we will succeed in obtaining the necessary financing to continue our operations. As a result, our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern.

Unless the context otherwise requires, the terms “we”, “our”, “ours” and “us”, refer to A.D. Integrity Applications, Ltd., an Israeli corporation, which we refer to as Integrity Israel, for all periods prior to July 15, 2010 and to Integrity Israel and Integrity Applications, Inc., a Delaware corporation, which we refer to as Integrity U.S., on a combined basis, for all periods from and including July 15, 2010.

Recent Corporate Developments

Reorganization

On July 15, 2010, we completed a reverse triangular merger with Integrity Israel and Integrity Acquisition Corp. Ltd., an Israeli corporation and a wholly owned subsidiary of ours, pursuant to which Integrity Acquisition Corp. Ltd. merged with and into Integrity Israel and all of the stockholders and option holders of Integrity Israel became entitled to receive shares and options in us in exchange for their shares and options in Integrity Israel (the “Reorganization”). Following the Reorganization, the former equity holders of Integrity Israel received the same proportional ownership in us as they had in Integrity Israel prior to the Reorganization. As a result of the Reorganization, Integrity Israel became a wholly owned subsidiary of ours. Pursuant to a tax ruling from the Israeli tax authorities, the former stockholders and options holders of Integrity Israel will be exempt from tax liability with respect to the Reorganization until they sell their holdings in us, so long as they deposit all their shares and options with a trustee for a period of two years from the issuance of such shares or options, as applicable, in connection with the Reorganization, give their written consent to the tax ruling and satisfy certain additional conditions detailed in the ruling. As a result, any of our stockholders that comply with this tax ruling will be unable to sell any of its shares of common stock in us prior to July 16, 2012 (unless decided otherwise by the Israeli tax authorities). Approximately 82% of our stockholders at the time of the reorganization (holding 3,280,000 of 3,999,998 shares then outstanding) complied with the ruling. The tax ruling will not affect the ability of the selling stockholders to sell any shares of common stock covered by the Registration Statement as the tax ruling does not apply to any shares issued after the completion of the Reorganization.

Private Placement

On July 26, 2010, we commenced an offering of up to 2,000,000 shares of our common stock to accredited investors at a price of \$6.25 per share in a private placement transaction (the “Private Placement”). The Private Placement resulted in the sale by us of an aggregate of 1,295,545 shares of common stock in seven closings held on December 16, 2010, December 30, 2010, January 31, 2011, March 31, 2011, April 29, 2011, May 31, 2011 and July 29, 2011, respectively. Purchasers of common stock in the Private Placement are entitled to anti-dilution protection until September 1, 2012 for certain issuances of common stock by us for less than \$6.25 per share.

In connection with the Private Placement, we agreed to issue to Andrew Garrett, Inc., the placement agent for the Private Placement (the “Placement Agent”), in partial consideration for its services as such, warrants to purchase a number of shares of common stock equal to 10% of the number of shares sold at such closing. In total, we issued to the Placement Agent warrants to purchase up to an aggregate of 129,556 shares of common stock at an exercise price of \$6.25 per share in connection with each closing of the Private Placement. The warrants have a five year term expiring on the fifth anniversary of the date on which the shares of common stock underlying such warrants are fully registered with the SEC.

Public Registration

In connection with the Private Placement, we agreed to file a registration statement covering the resale of the shares of common stock sold by us in the Private Placement. On August 22, 2011, we filed the Registration Statement relating to the resale by the selling stockholders named in the Registration Statement (as amended from time to time) of the 1,295,545 shares of our common stock issued in the Private Placement. The registration statement was declared effective by the SEC on November 14, 2011. All of the shares of common stock covered by the registration statement have been registered for resale by the selling stockholders named therein and we will not receive any of the proceeds from the sale of any shares of common stock sold by the selling stockholders thereunder.

There is no public market for our common stock. We intend to seek a qualification for our common stock to be quoted on the Over-the-Counter Bulletin Board (the “OTCBB”); however, no assurance can be given as to our success in qualifying for quotation on the OTCBB.

Significant Accounting Policies

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States (“U.S. GAAP”). In connection with the preparation of our financial statements, we are required to make assumptions and estimates about future events, and apply judgments that affect the reported amounts of assets, liabilities, revenue, expenses and the related disclosures. We base our assumptions, estimates and judgments on historical experience, current trends and other factors that management believes to be relevant at the time our consolidated financial statements are prepared. On a regular basis, management reviews the accounting policies, assumptions, estimates and judgments to ensure that our financial statements are presented fairly and in accordance with U.S. GAAP. However, because future events and their effects cannot be determined with certainty, actual results could differ from our assumptions and estimates, and such differences could be material.

Our significant accounting policies are described in Note 2, *Summary of Significant Accounting Policies*, of the Consolidated Financial Statements appearing elsewhere in 2011 10K report. Our management believes that, as for the financial statements for the periods included in this report, the going concern assessment and the stock based compensation are considered as critical accounting policies. Due to the early stage of operations of the Company, there are no other accounting policies that are considered to be critical accounting policies by management.

Going concern uncertainty

The development and commercialization of our product will require substantial expenditures. We have not yet generated any revenues and have incurred substantial accumulated losses and cumulative negative operating cash flows since inception. We currently have no sources of recurring revenue and are therefore dependent upon external sources for financing our operations. There can be no assurance that we will succeed in obtaining the necessary financing to continue our operations. As a result, our independent registered public accounting firm has expressed substantial doubt about our ability to continue as a going concern. Management’s plans concerning these matters are described in Note 1B of the Notes to Condensed Consolidated Financial Statements appearing elsewhere in this report; however management cannot assure you that its plans will be successful in addressing these issues. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Recently issued accounting pronouncements

1. ASC Topic 220, "Comprehensive Income"

In June 2011, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standard Update No. 2011-05, “*Comprehensive Income (Topic 220) - Presentation of Comprehensive Income*” (“ASU 2011-05”). ASU 2011-05 eliminates the option to present the components of other comprehensive income as part of the statement of equity and requires an entity to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements.

ASU 2011-05 will be effective for fiscal years, and interim periods within those years, beginning after December 15, 2011 (fiscal year 2012 for the Company) and should be applied retrospectively.

2. ASC Topic 210, “Balance Sheet”

In December 2011, the FASB issued Accounting Standard Update (ASU) 2011-11, “*Balance Sheet (Topic 210) - Disclosures about Offsetting Assets and Liabilities*” (ASU 2011-11). ASU 2011-11 enhances disclosures about financial instruments and derivative instruments that are either offset in accordance with the Accounting Standards Codification or are subject to an enforceable master netting arrangement or similar agreement.

The amended guidance will be effective for annual reporting periods beginning on or after January 1, 2013, and interim periods within those annual periods (fiscal year 2013 for the Company) and should be applied retrospectively to all comparative periods presented.

The Company is currently evaluating the impact that the adoption of ASU 2011-11 would have on its consolidated financial statements, if any.

Results of Operations

Three Months Ended March 31, 2012 Compared to Three Months Ended March 31, 2011

Revenues

We did not have any revenues during the three months ended March 31, 2012 and 2011, as we have not yet commercialized our GlucoTrack product candidate.

Research and Development Expenses

Research and development expenses were \$445,066 for the three months ended March 31, 2012, as compared to \$373,483 for the prior-year period. The increase is primarily attributable to increased compensation expenses resulting from an increase in the number of employees and employee salaries as well as option awards granted to certain executives and employees, development of a new model of the main unit for GlucoTrack DF-F and costs involved in expediting product readiness for clinical trials. Research and development expenses consist primarily of salaries and other personnel related expenses, including stock-based compensation expenses, materials, travel expenses and other expenses. We expect research and development expenses to continue to increase in 2012 and beyond as we enter into more advanced stages of development of our GlucoTrack DF-F product candidate, including formal clinical trials, as well as commencement of the development of other products in the GlucoTrack family.

General and Administrative Expenses

General and administrative expenses were \$202,935 for the three months ended March 31, 2012, as compared to \$165,638 for the prior-year period. The increase is primarily attributable to increased compensation expenses resulting from an increase in the number of employees and employee salaries, expenses related to stock-based compensation and increases in professional services expenses as a result of additional services incurred in connection with our compliance obligations as a public reporting company. General and administrative expenses consist primarily of salaries and other related expenses for executive, finance and administrative personnel, including stock-based compensation expense. Other general and administrative costs and expenses include facility-related costs not otherwise included in research and development costs and expenses, and professional fees for legal and accounting services. We expect that our general and administrative costs and expenses will continue to increase in 2012 as we prepare for and later commence clinical trial activities for the *GlucoTrack DF-F* and incur increased costs to comply with the reporting and other compliance obligations applicable to public reporting companies.

Financing Income (Expense), net

Financing (income) expense, net was (\$13,048) for the three months ended March 31, 2012, as compared to \$1,143 for the prior-year period. The decrease is primarily attributable to a decrease in the fair value of warrants with down-round protection offset by an increase in foreign exchange loss for balances denominated in New Israeli Shekels and an increase in linkage difference on principal of loans from shareholders.

Net Loss

Net loss was \$634,953 for the three months ended March 31, 2012, as compared to \$540,264 for the prior-year period.

Liquidity and Capital Resources

We currently have extremely limited liquidity. As of March 31, 2012, cash on hand was approximately \$1.4 million. Our credit line availability was NIS 300,000 (approximately \$81,000 based on an exchange rate of \$3.715 NIS/dollar as of March 31, 2012). Based on our current strategy and operating plan, we believe that our cash and cash equivalents, together with the funds available for borrowing under our credit line, will enable us to operate for a period of about 8 months. If we change our current strategy or operating plan, we may need to raise additional capital prior to the end of such 8 month period.

Integrity Israel is party to a loan and investment agreement dated February 18, 2003 with Y.H. Dimri Holdings (“Dimri”) pursuant to which Dimri loaned us a principal amount of NIS 1,440,000, subject to linkage differences in Israel (\$387,617 based on an exchange rate of \$3.715 NIS/dollar as of March 31, 2012). In addition, Messrs. Avner Gal and Zvika Cohen collectively loaned us NIS 176,000 (\$48,735 based on the same exchange rate) on May 15, 2002 pursuant to an oral agreement. Messrs. Nir Tarlovsky, Yitzhak Fisher and Asher Kugler loaned us \$75,000 on March 16, 2004. These loans, in addition to the loan from Dimri mentioned above, are not to be repaid until the first year in which we realize profits in our annual income statement (accounting profit). At such time, the loans are to be repaid on a quarterly basis in an amount equal to 10% of our total sales after deduction of VAT in the relevant quarter, beginning on the quarter following the first year in which we realize profits in our annual income statement. The total amount to be repaid by us to each lender shall be an amount equal to the aggregate principal amount loaned by such lender to us, *plus* an amount equal to the product of the amount of each payment made by us in respect of such loan multiplied by the percentage difference between the Israeli Consumer Price Index on the date on which the loan was made and the Israeli Consumer Price Index on the date of such payment. However, notwithstanding the abovementioned mechanism, we will not be required to repay the loans during any time when such repayment would cause a deficit in our working capital. The Israeli Consumer Price Index was 177.6386, 178.5793 and 182.3521, respectively, as of the dates of the Gal/Cohen loan, the Tarlovsky/Fisher/Kugler Loan and the Dimri loan. The Israeli Consumer Price Index as of March 31, 2012 was 217.0954. Our board of directors is entitled to modify the repayment terms of these loans, so long as such modification does not discriminate against any particular lender, and provided that all payments must be allocated among the lenders on a pro-rata basis.

Net Cash Used in Operating Activities for the Three Month Periods Ended March 31, 2012 and March 31, 2011

Net cash used in operating activities was \$475,805 and \$367,328 for the three month periods ended March 31, 2012 and 2011, respectively. Net cash used in operating activities primarily reflects the net loss for those periods of \$634,953 and \$540,264 respectively, the increase of the liability for employee rights upon retirement of \$9,215 and \$14,582, respectively, and by cash provided due to the adjustment to the net loss and changes in operating assets and liabilities in the amounts of \$65,074 and \$73,230 respectively.

Net Cash Used in Investing Activities for the Three Month Periods Ended March 31, 2012 and March 31, 2011

Net cash used in investing activities was \$15,505 and \$13,591 for the three month periods ended March 31, 2012 and 2011, respectively, and was used primarily to purchase equipment (such as computers, R&D and office equipment), and fund deposits in respect of employees rights upon retirement.

Net Cash Provided by Financing Activities for the Three Month Periods Ended March 31, 2012 and March 31, 2011

Net cash provided by financing activities was \$0 and \$573,407 for the three month periods ended March 31, 2012 and 2011, respectively. Cash provided by financing activities in the three month period ended March 31, 2011 is primarily attributable to capital raised in the amounts of \$563,081, and credit line borrowing in the amount of \$10,326.

Off-Balance Sheet Arrangements

As of March 31, 2012, we did not have any off-balance sheet arrangements as defined in Item 303(a)(4) of Regulation S-K.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

Not required for smaller reporting companies.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2012. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2012, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

The SEC, as required by Section 404 of the Sarbanes-Oxley Act, adopted rules requiring every company that files reports with the SEC to include a management report on such company's internal control over financial reporting in its annual report. In addition, our independent registered public accounting firm must attest to our internal control over financial reporting. Our Annual Report on Form 10-K for the year ended December 31, 2011 did not include a report of management's assessment regarding internal control over financial reporting or an attestation report of our independent registered public accounting firm due to a transition period established by SEC rules applicable to newly public companies. Management will be required to provide an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2012. We believe we will have adequate resources and expertise, both internal and external, in place to meet this requirement. However, there is no guarantee that our efforts will result in management's ability to conclude, or our independent registered public accounting firm to attest, that our internal control over financial reporting is effective as of December 31, 2012.

There were no changes in our internal control over financial reporting during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1A. Risk Factors.

Except for the new risk factor set forth below, there have been no material changes to the factors disclosed in Part I, Item 1-A. Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2011.

The materials used to coat the sensors of the personal ear-clip of the GlucoTrack DF-F have failed an in vitro cytotoxicity test, as a result of which we may be required to utilize other materials for such coating, which would materially extend the time required for us to obtain CE Mark approval to market the GlucoTrack DF-F in Europe and FDA approval or clearance to market the GlucoTrack DF-F in the United States.

The sensors in the personal ear-clip of the GlucoTrack DF-F are currently coated in a nickel coating. In connection with our CE Mark application and expected future FDA application, we recently conducted an *in vitro* (test tube) cytotoxicity test of the nickel coating. The results from this *in vitro* cytotoxicity test showed that the nickel coating failed the test as it had caused adverse reactions, described as severe, in an *in vitro* setting. Subsequent to that result, in accordance with ISO 10993-1 and ISO 14971, the contract research organization that conducted the initial cytotoxicity test conducted an evaluation, based on existing data, of the toxicity of the nickel coating in *in vivo* (live patient) settings, including analysis of the 15,089 exposures, from 363 patients, recorded as part of our early clinical trials of the GlucoTrack DF-F. Based on this evaluation, the contract research organization concluded that the GlucoTrack DF-F did not present any evidence to support a conclusion that the nickel coating presented a risk regarding a sensitization or irritation response in patients. When we submit our completed CE Mark application, we will be required to provide the Notified Body the results of the *in vitro* cytotoxicity test and a written explanation as to why we believe the nickel coating is safe for users of the GlucoTrack DF-F despite the results of such test. In accordance with ISO 10993-1, we expect to present the lack of evidence of a sensitization or irritation in response in our early clinical trials as evidence that the nickel coating is safe for users. If the Notified Body is not satisfied with our explanation, it may require us to utilize a different coating for the sensors in the personal ear-clip, which would materially extend the time required for us to obtain CE Mark approval to market the GlucoTrack DF-F in Europe (if at all). Furthermore, any acceptance of such explanation by the Notified Body in connection with our CE Mark application does not provide any assurance that the FDA will accept such explanation if and when we apply for approval or clearance to market the GlucoTrack DF-F in the United States.

Item 6. Exhibits.

<u>Exhibit No.</u>	<u>Description</u>
3.1	Certificate of Incorporation of Integrity Applications, Inc. (1)
3.2	Certificate of Amendment to Certificate of Incorporation of Integrity Applications, Inc. (1)
3.3	Bylaws of Integrity Applications, Inc. (1)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Label Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

(1) Previously filed as an exhibit to the Company's Registration Statement on Form S-1, as filed with the SEC on August 22, 2011.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: May 15, 2012

INTEGRITY APPLICATIONS, INC.

By: /s/ Avner Gal

Name: Name

Title: Chairman of the Board and Chief Executive Officer

By: /s/ Jacob Bar-Shalom

Name: Jacob Bar-Shalom

Title: Chief Financial Officer
(Principal Accounting Officer)

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1	Certificate of Incorporation of Integrity Applications, Inc. (1)
3.2	Certificate of Amendment to Certificate of Incorporation of Integrity Applications, Inc. (1)
3.3	Bylaws of Integrity Applications, Inc. (1)
31.1	Certification of Chief Executive Officer Pursuant to Exchange Act Rule 13a-14(a) or 15(d)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes Oxley Act of 2002
31.2	Certification of Chief Financial Officer Pursuant to Exchange Act Rule 13a-14(a) or 15(d)-14(a), as Adopted Pursuant to Section 302 of the Sarbanes Oxley Act of 2002
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes Oxley Act of 2002
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Label Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

(1) Previously filed as an exhibit to the Company's Registration Statement on Form S-1, as filed with the SEC on August 22, 2011.

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Avner Gal, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2012 of Integrity Applications, 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 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)) 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) Paragraph omitted pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended.
 - (c) evaluated the effectiveness of the registrant's disclosure controls 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 evaluation; 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer 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: May 15, 2012

By: /s/ Avner Gal

Avner Gal
Chairman of the Board and Chief Executive Officer

**CERTIFICATION PURSUANT TO RULE 13a-14(a) OR 15d-14(a) OF
THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002**

I, Jacob Bar-Shalom, certify that:

1. I have reviewed this quarterly report on Form 10-Q for the fiscal quarter ended March 31, 2012 of Integrity Applications, 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 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)) 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) Paragraph omitted pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as amended.
 - (c) evaluated the effectiveness of the registrant's disclosure controls 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 evaluation; 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 (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer 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: May 15, 2012

By: /s/ Jacob Bar-Shalom
Jacob Bar-Shalom
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Integrity Applications, Inc. (the "Company") for the three month period ended March 31, 2012, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Avner Gal, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Avner Gal
Avner Gal
Chairman of the Board and Chief Executive Officer

Dated: May 15, 2012

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report on Form 10-Q of Integrity Applications, Inc. (the "Company") for the three month period ended March 31, 2012, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jacob Bar-Shalom, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Jacob Bar-Shalom
Jacob Bar-Shalom
Chief Financial Officer

Dated: May 15, 2012
