

BIO KEY INTERNATIONAL INC
Form 10-K
April 16, 2012

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549
FORM 10-K

Annual Report Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

For the Fiscal Year Ended December 31, 2011

Commission File Number 1-13463

BIO-KEY INTERNATIONAL, INC.

(Exact name of registrant as specified in its charter)

DELAWARE

41-1741861

(State or other jurisdiction of

(IRS Employer

Incorporation or organization)

Identification Number)

3349 HIGHWAY 138, BUILDING D, SUITE B, WALL, NJ 07719

(Address of Principal Executive Offices) (Zip Code)

(732) 359-1100

Issuer's telephone number, including area code.

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

Title of Each Class	Name of Exchange on which Registered
Common Stock, \$0.0001 par value per share	None

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

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 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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

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

The aggregate market value of the registrant's voting and non-voting common equity held by non-affiliates computed

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by reference to the price at which the common equity was last sold, as of the last business day of the registrant's most recently completed second fiscal quarter was \$9,729,713.

As of April 4, 2012, the registrant had 78,155,413 shares of common stock outstanding.

Documents Incorporated by Reference: None

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PRIVATE SECURITIES LITIGATION REFORM ACT

All statements other than statements of historical facts contained in this Annual Report on Form 10-K, including statements regarding our future financial position, business strategy and plans and objectives of management for future operations, are forward-looking statements. The words “anticipate,” “believe,” “estimate,” “will,” “may,” “future,” “plan,” “intend” and “expect” and similar expressions generally identify forward-looking statements. Although we believe our plans, intentions and expectations reflected in the forward-looking statements are reasonable, we cannot be sure they will be achieved. Actual results may differ materially from the forward-looking statements contained herein due to a number of factors. Many of these factors are set forth under the caption “Risk Factors” in Item 1A of this Annual Report and other filings with the Securities and Exchange Commission. These factors are not intended to represent a complete list of the general or specific factors that may affect us. It should be recognized that other factors, including general economic factors and business strategies, may be significant, presently or in the future. Except as required by law, we undertake no obligation to update any forward-looking statement, whether as a result of new information, future events or otherwise.

PART I

ITEM 1. DESCRIPTION OF BUSINESS

BIO-key International, Inc., a Delaware corporation (the “Company,” “BIO-key,” “we,” or “us), was founded in 1993 to develop and market advanced fingerprint biometric technology and software solutions. Biometric technology is the science of analyzing specific human characteristics which are unique to each individual in order to identify a specific person from a broader population. First incorporated as BBG Engineering, the company became SAC Technologies in 1994. The BIO-key name was introduced in 2002.

We develop and market advanced fingerprint identification biometric technology and software solutions. We were among the initial pioneers in developing automated, finger identification technology that can be used without the aid of non-automated methods of identification such as a personal identification, password, token, smart card, ID card, credit card, passport, driver’s license or other form of possession or knowledge based identification. This advanced BIO-key® identification technology improves both the accuracy and speed of finger-based biometrics.

We have developed what we believe is the most discriminating and effective commercially available finger-based biometric technology. Our primary focus is in marketing and selling this technology and completing strategic acquisitions that can help us leverage our capability to deliver identification solutions. We have built a direct sales force of professionals, and also team with resellers, integrators and partner networks with substantial experience in selling technology solutions to government and corporate customers.

”As discussed in Note M to the Consolidated Financial Statements included in this report, we have organized the Company into one reporting segment: Biometrics. During the year ended December 31, 2011, the Company continued to focus on its primary objectives of increasing revenue and managing expenses, by developing leadership technology and applications and by providing its customers with high quality support and service.

Markets

Finger-based Biometric Identification

BIO-key is a leader in finger-based biometric identification. In partnerships with OEMs, integrators, and solution providers, we provide biometric software solutions to private and public sector customers. BIO-key provides the ability to positively identify individuals before granting access to valuable corporate resources, web portals or applications in seconds. Powered by our patented Vector Segment Technology™ our VST™, WEB-key® and BSP development kits are fingerprint biometric solutions that provide true interoperability with all major reader manufacturers, enabling application developers and integrators to seamlessly integrate fingerprint biometrics into virtually any application. BIO-key development tools deliver a tangible return on a security platform investment that can:

- Reduce risk of identity or data theft
- Improve convenience for the end user
- Lower operational and administrative costs
- Future proof a company's authentication and identification process

BIO-key’s patented Vector Segment Technology (VST) is the foundation for these solutions. BIO-key’s unique solutions provide users with the ability to positively identify themselves to applications with the simple scan of their finger. This capability is a significant improvement in both convenience and security over other competitive offerings and provides companies with a cost-effective solution to thwart phishing attacks and comply with government regulations and legislation such as FFIEC compliance, HIPAA, HSPD-12, and the Electronic Signatures Act. BIO-key

couples these capabilities with device interoperability, system flexibility and scalability.

1

BIO-key has formed relationships with providers of biometric logon software including IBM, Oracle, Microsoft, Indigo and CA Technologies to provide enterprise-ready SingleSignOn systems to many large companies in the US and abroad.. BIO-key also has partnership agreements with leading technology companies including MorphoTrak, McKesson, LexisNexis, and IBM to deliver advanced biometric applications for government, civil and commercial clients.

BIO-key believes there is potential for significant growth in four key areas. Providing biometric technology to support electronic medical records (EMR) and electronic health records (EHR) for hospital and other medical practice group clients is one of BIO-key's primary areas of focus. Second, we focus on providing donor ID solutions for blood centers, expanding the company's existing footprint in this area. In additions, government agencies continue to recognize BIO-key as a world-class provider of biometric solutions therefore our government contracting business is another primary focus of ours. Lastly, we believe that the popularity of smartphones and tablets is creating a demand for much stronger security, which presents another significant opportunity for BIO-key, and we have already introduced several mobile identification solutions.

Products

The Company's biometric identification technology improves both the accuracy and speed of identifying individuals by extracting unique data from a fingerprint and using it to positively identify an individual. The technology has been built to be completely scalable to handle databases containing millions of fingerprints. BIO-key achieves the highest levels of discrimination without requiring any other identifying data such as a userID, smart card, or token. BIO-key's core technology supports interoperability on over 60 different commercially available fingerprint readers. The technology is also interoperable across Windows, Linux, Apple iOS, and Android operating systems. This interoperability is a key differentiator for BIO-key in the biometric market.

In regard to performance, BIO-key has full support for industry standards and received National Institute of Standards and Technology ("NIST") certification on its ability to support HSPD-12 supported INCITS-378 templates. We believe we have the largest deployment of ISO standard templates in the world with over 300 million created in Bangladesh. Moving forward we anticipate a growing acceptance of fingerprint biometric technology along with a growing demand to provide biometric identification support for advanced mobile devices. Overall, BIO-key's most significant deliverables will be:

- Securing access to Internet sites and Internet apps
- Securing access to logical networks and enterprise apps
- Providing fast, accurate civil ID solutions
- Providing patients and medical staff with secure biometric access to records and ePrescriptions
- Provide blood donors with a safe, secure and convenient way to ID and donate.
- Securing mobile devices such as biometric enabled phones and tablets
- Preventing identity theft through positive user identification and false alias validation

BIO-key's finger identification algorithm—Vector Segment Technology (VST™) is the core intellectual property behind its full suite of biometric products that include:

- Vector Segment Technology SDK (VST) —BIO-key’s biometric software development kit (“SDK”) that provides developers the ability to take advantage of a highly accurate, device interoperable algorithm. VST is available as a low level SDK for incorporation into any application architecture to increase security while not sacrificing convenience. VST runs on Windows, Linux, iOS and Android systems.
- True User Identification ®—BIO-key’s biometric identification solution that offers large scale one-to-many user lookup with nothing but a single fingerprint. This solution enables customers to perform false alias checks and manage fraudulent access to systems. True User Identification leverages databases to scale the identification capabilities to millions of users. The solution runs on commercially available hardware making it truly scalable for any size system.

- **WEB-key®**—BIO-key’s biometric security platform for managing fingerprint authentication across unprotected networks including the Internet. It extends all features and functionalities of the VST algorithm to customers looking to add an enhanced level of security to their thin client and client/server applications. WEB-key currently is supported by both Windows and Linux operating systems. Clients are available on Windows, iOS and Android systems.
- **Biometric Service Provider™** —BIO-key provides support for the BioAPI (a standards-based solution meeting worldwide needs) for a compliant interface to applications using biometrics for verification and identification. BIO-key enhances the traditional use of the BioAPI by having added support for WinCE devices years ago, supporting identification calls and also providing a single user interface for multiple fingerprint readers.
- **ID Director™**—BIO-key’s solution for single sign on integration with CA Technologies SiteMinder, Oracle’s Fusion Middleware SSO, and other solutions, utilizing the power and security of WEB-key. This solution provides a simple to implement, custom authentication scheme for companies looking to enhance authentication. ID Director can easily add a level of security and convenience to the transaction level of any application.

Current Business Plan

BIO-key’s current business plan is to:

- License its core technology “VST” and True User Identification® to original equipment manufacturers, systems integrators, and application developers who develop products and applications that utilize its biometric fingerprint matching solutions.
 - License WEB-key®, the Company’s security centric web-based biometric authentication solution.
- Integrate its core technology competencies to leverage new business opportunities and develop new markets for its innovative products.

Competition

In addition to companies that provide existing commonplace methods of restricting access to facilities and logical access points such as pass cards, PIN numbers, passwords, locks and keys, there are numerous companies involved in the development, manufacturing and marketing of fingerprint biometrics products to commercial, government, law enforcement and prison markets. These companies include, but are not limited to, 3M (Cogent), NEC, and MorphoTrak.

The majority of sales for automated fingerprint identification products in the market to date have been deployed for government agencies, healthcare facilities and law enforcement applications. The consumer and commercial markets represent areas of significant growth potential for biometrics, led by the use of mobile devices.

The epidemic of security and data breaches reported in 2011 is one of the driving factors for identifying new methods of protecting valuable data. After attempting to create a more sophisticated password or more efficient token or PIN, it’s become apparent that each of these methods is easily compromised and the downside risks are significant.

With respect to competing biometrics technologies, each has its strengths and weaknesses and none has emerged as a market leader:

- Fingerprint identification is generally viewed as very accurate, inexpensive and non-intrusive.

- Palmvein scanning is expensive, technique-sensitive and offers mobility challenges.
- Iris scanning is viewed as accurate, but the hardware is significantly more expensive.
- Facial recognition can have accuracy limitations and is typically highly dependent on ambient lighting conditions, angle of view and other factors.

We are starting to witness a change in the way biometric technology is viewed. Up until recently, there was a general consensus that fingerprint biometric technology was exclusively used for forensics. Today as we see fingerprint biometric technology deployed at schools, testing centers, airports, retail stores, fast food franchises, hospitals, government agencies and healthcare it is clear that fingerprint biometrics is becoming part of everyday life.

Advanced mobile devices with all of their advanced capabilities and applications will generate a high demand for strong security / identification to protect the financial, business and personal information stored or accessed on each device.

BIO-key is already working with leading healthcare providers and government agencies introducing mobile ID solutions for the iPad – iPhone and Android.

Marketing and Distribution

BIO-key's marketing and distribution efforts consist of the following major initiatives:

- BIO-key remains committed to our partner program and the leverage sales model. The company has achieved premier status with Allscripts and will soon be a premier partner with CA. IBM is launching a new division called IBM Security and we believe that BIO-key has the opportunity to become that division's preferred biometric partner. As the coming year progresses, we also hope to leverage our relationship with Oracle to generate greater returns.
- BIO-key is also promoting biometric technology and its offerings through industry trade shows, public speaking engagements, press activities and partner marketing programs
- The BIO-key social marketing network is active and growing. Our YouTube videos have generated over 9,000 views and the company has over 100+ followers on LinkedIn and Twitter.
- BIO-key is directing licensing efforts to original equipment manufacturers, application developers and system integrators.
 - BIO-key is continuing to build a reseller, integrator and partner network as well as a direct sales team.

Addressing the Market

Following are the specific marketing/sales programs in place:

- Direct Selling Efforts — BIO-key's direct sales force focuses on OEMs and large entities in the commercial and Government markets. The sales team has extensive sales experience and expertise in emerging biometric technologies. The BIO-key sales force is rounded out by Inside Sales, which is responsible for maintaining and supporting our existing installed base, acting as a front-line support for any inquiries on our product line, and facilitating activities that make the field team more productive.
- Conferences and Trade Shows — BIO-key attends and actively participates in various product-related conferences and trade shows in the technology and security industries to generate market awareness of biometric and wireless mobile data technology generally and our offerings specifically.
- Strategic Alliance — BIO-key's strategic alliances and reseller agreements with other vendors play a significant role in our overall sales efforts. In the past year, BIO-key has initiated and bolstered numerous important and promising

long-term relationships. Just a few examples include:

- BIO-key is an active member in CA, IBM and Oracle partner programs, delivering authentication and identification solutions integrated with their Identity Management platform to their customers worldwide.
- BIO-key is focusing on specific vertical markets including healthcare where it continues to grow upon successful integration of its identification technology to provide convenient, accurate and fast user identification in partner solutions including McKesson and Allscripts

Licensing

BIO-key targets both Internet infrastructure companies and large portal providers as possible licensees for its WEB-key® solution. On the Internet infrastructure side, BIO-key seeks to partner with Internet server manufacturers, providers of database and data warehouse engine software, horizontally positioned application engines, firewall solution providers and peripheral equipment manufacturers. On the portal side, BIO-key is targeting financial service providers such as credit and debit card authorization and issuing institutions, Internet retailers, business-to-business application service providers (ASPs) and corporate intranets. In the past five years, BIO-key has undertaken a WEB-key® and VST direct selling effort, and entered into license agreements with OEMs and system integrators to develop applications for distribution to their respective customers.

BIO-key is also addressing the security needs of application providers in the following vertical markets:

- **Government** —Using BIO-key’s technology, Northrup Grumman deployed an application within the Department of Defense to cross-credential visitors and contractors to certain military bases. In addition, BIO-key, in conjunction with MorphoTrak, is providing the finger matching platform for the FBI’s Next Generation IAFIS system, which today is one of the world’s largest biometric systems.
- **Education** —Educational Biometric Technologies and Identimetrics have incorporated BIO-key technology to enable school children to pay for school lunch programs and checkout library books using their fingerprints. VST technology enables schools to enroll these children and reduces the administrative costs of managing passwords and collecting payments.
- **Commerce:** LexisNexis has implemented various solutions in thousands of locations in over 70 countries using BIO-key’s VST technology to reduce fraud and identity theft.
- **Patient Records and Information Management:** Allscripts has integrated and deployed BIO-key’s biometric solution as a standard part of its Enterprise EHR solution. The integrated solution has been deployed at George Washington University, Holzer Clinic, Medisync, and many other Allscripts customers. HBOC, one of the largest healthcare patient records and information management companies, has integrated BIO-key technology into their portal and has deployed their solution in a pilot for the Baptist Hospital System. EPIC, another well recognized company, has integrated BIO-key technology into their information management systems. Also, the Indiana Blood Center, Oklahoma Blood Center and the Institute for Transfusion Medicine in Pittsburgh are incorporating BIO-key’s large scale identity assurance platform to provide a safe, secure and convenient means for donors to confirm their identity. McKesson Provider Services has incorporated BIO-key’s “one-to-many” finger matching software into their Accudose line of medication and supplies dispensing systems solutions and is selling that equipment to clinics and hospitals nationwide. Sentillion (A Microsoft Company) and Healthcast are using BIO-key technology for the single sign on process.
- **Financial:** BIO-key is working with several companies focusing on financial applications such as point of sale systems and employee trusted identification cards, as well as customer facing applications over the Internet. BIO-key has also begun work with several financial institutions to incorporate its technology for secure access to money transfers for institutional customers.

Intellectual Property Rights

We believe that our intellectual property is important to our biometric operation:

- **Patents**—We use patented technology and trade secrets developed or acquired by us.

In May 2005, the U.S. Patent & Trademark Office issued us a patent for our Vector Segment fingerprint technology (VST), BIO-key's core biometric analysis and identification technology.

On August 29, 2006, BIO-key announced that the Company's patent for biometric identification indexing, a core feature of its VST™ software, has been granted in Europe. In addition, a WEB-key® authentication security patent for "Systems and Methods of Secure Biometric Authentication" has been issued in South Africa. These patents enhance the worldwide protection of BIO-key's technology. The European patent for VST, which provides BIO-key with protection of its intellectual property in Europe, was issued on March 29, 2006 and covers a similar set of claims for a patent BIO-key was granted in 2005 in the United States.

On October 3, 2006, BIO-key announced that the Company's patent for a biometric authentication security framework has been granted by the U.S. Patent & Trademark Office. The patent No. 7,117,356 was issued to BIO-key for a biometric authentication security framework that enhances commercial and civil biometric use. BIO-key's authentication security framework protects privacy and security while also facilitates ease of use of biometric systems. The technology that this patent is based on is the foundation for the authentication security incorporated in BIO-key's WEB-key® product line. WEB-key is a mature enterprise authentication solution that functions in a wide variety of application environments. The solution supports a variety of implementation alternatives including card technologies for 'two-factor' authentication and also supports 'single-factor' authentication. Partners and customers implementing BIO-key's WEB-key software to provide convenient and secure user identity include a number of institutions including the Allscripts Healthcare Solutions, American Association of Medical Colleges, Empresa de Telecomunicaciones de Bogotá (Columbia) and Iomedex Corporation.

On January 11, 2007, BIO-key announced that the U.S. Patent & Trademark Office has issued US patent No. 7,155,040 covering BIO-key's unique image processing technology, which is critical for enhancing information used in the extraction of biometric minutiae. The issued patent protects a critical part of an innovative four-phase image enhancement process developed by BIO-key, and represents the third U.S. patent granted to the company for its biometric technology.

On April 15, 2008, BIO-key announced that the U.S. Patent and Trademark Office has issued US patent No. 7,359,553 covering BIO-key's image enhancement and data extraction core algorithm components. The solution protected under this recently issued patent provides the capability to quickly and accurately transform a fingerprint image into a computer image that can be analyzed to determine the critical data elements

On October 15, 2008 BIO-key announced that the U.S. Patent and Trademark Office has issued US patent No. 7,415,605 for the Company's "Biometric Identification Network Security" method. The solution protected under this recently issued patent provides a defense against hackers and system attacks, while leveraging the industry standard Trusted Platform Module (TPM) specification for encryption key management.

On December 3, 2008 BIO-key announced that the U.S. Patent and Trademark Office has issued US patent No. 7,454,624 for the Company's "Match Template Protection within a Biometric Security System" method. The solution protected under this recently issued patent limits the scope of enrollment templates usage and also eliminates the need for revocation or encryption processes, which can be expensive and time consuming.

On March 10, 2009 BIO-key announced that the U.S. Patent and Trademark Office has issued US patent No. 7502938 for the Company's "Trusted Biometric Device" which covers a simple, yet secure method of protecting a user's biometric information. It covers the transmission of information from the point the information is collected at the biometric reader until the data reaches the computer or device that is authenticating the user's identity.

On May 26, 2009 BIO-key announced that the U.S. Patent and Trademark Office has issued US patent No. 7539331 for the Company's "Image Identification System" method for improving the performance and reliability of image analysis within an image identification system.

On December 19, 2011 BIO-key announced that the U.S. Patent and Trademark Office has issued US Patent No 8,055,027 for the Company's "Generation of Directional Information in the Context of Image Processing" method for image enhancement and processing.

- Trademarks— We have registered our trademarks "BIO-key", "True User Identification", "Intelligent Image Indexing" and "WEB-key" with the U.S. Patent & Trademark Office.
- Copyrights and trade secrets—We take measures to ensure copyright and license protection for our software releases prior to distribution. When possible, the software is licensed in an attempt to ensure that only licensed and activated software functions to its full potential. We also take measures to protect the confidentiality of our trade secrets.

Research and Development

Our research and development efforts are concentrated on enhancing the functionality, reliability and integration of our current products as well as developing new and innovative products for biometrics. Although BIO-key believes that its identification technology is one of the most advanced and discriminating fingerprint technologies available today, the markets in which BIO-key compete are characterized by rapid technological change and evolving standards. In order to maintain its position in the market, BIO-key will continue to upgrade and refine its existing technologies.

During the fiscal years ended December 31, 2011 and 2010, BIO-key spent approximately \$1,117,000 and \$1,056,000 respectively, on its Biometric segment's research, development and engineering. BIO-key's limited customer base during that time did not directly bear these costs, which were principally funded through outside sources of equity and debt financing.

Government Regulations

BIO-key is not currently subject to direct regulation by any government agency, other than regulations generally applicable to businesses or related to specific project requirements. In the event of any international sales, the company would be subject to various domestic and foreign laws regulating such exports and export activities.

Environmental Regulations

As of the date of this report, BIO-key has not incurred any material expenses relating to our compliance with federal, state, or local environmental laws and does not expect to incur any material expenses in the foreseeable future.

Employees and Consultants

As of March 1, 2012, BIO-key employed fourteen (14) individuals on a full-time basis as follows - five (5) in engineering, customer support, research and development; four (4) in finance and administration; and five (5) in sales and marketing. BIO-key also uses the services of two (2) consultants (full-time), who provide engineering and technical services, one (1) part-time contracts administrator, and one (1) part-time sales support.

ITEM 1A. RISK FACTORS

Set forth below are the risks that we believe are material to our investors. This section contains forward-looking statements. You should refer to the explanation of the qualifications and limitations on forward-looking statements appearing just before our Description of Business section above.

Business and Financial Risks

Based on our lack of significant revenue since inception and recurring losses from operations, our auditors have included an explanatory paragraph in their opinion as to the substantial doubt about our ability to continue as a going concern.

Due to, among other factors, our history of losses (excluding gains from valuation changes in embedded derivatives) and limited revenue, our independent auditors have included an explanatory paragraph in their opinion for the year ended December 31, 2011 as to the substantial doubt about our ability to continue as a going concern. Our financial statements have been prepared in accordance with accounting principles generally accepted in the United States, which contemplate that we will continue to operate as a going concern. Our financial statements do not contain any adjustments that might result if we are unable to continue as a going concern.

Since our formation, we have historically generated minimal revenue and have sustained substantial operating losses.

As of December 31, 2011, we had a working deficit of approximately \$1,539,000 and an accumulated deficit of approximately \$52,292,000. Since our inception, we have focused almost exclusively on developing our core technologies and, until the fourth quarter of 2004 had not generated any significant revenue. In 2009 we sold our Law Enforcement division, losing the benefit of significant recurring revenue streams. In order to increase revenue, we have developed a direct sales force and anticipate the need to retain additional sales, marketing and technical support personnel and may need to incur substantial expenses. We cannot assure you that we will be able to secure these necessary resources, that a significant market for our technologies will develop or that we will be able to achieve our targeted revenue.

Our biometric technology has yet to gain widespread market acceptance and we do not know how large of a market will develop for our technology.

Biometric technology has received only limited market acceptance, particularly in the private sector. Our technology represents a novel security solution and we have not yet generated significant sales. Although recent security concerns relating to identification of individuals has increased interest in biometrics generally, it remains an undeveloped, evolving market. Biometric based solutions compete with more traditional security methods including keys, cards, personal identification numbers and security personnel. Acceptance of biometrics as an alternative to such traditional methods depends upon a number of factors including:

- the reliability of biometric solutions
- public perception regarding privacy concerns

- costs involved in adopting and integrating biometric solutions

For these reasons, we are uncertain whether our biometric technology will gain widespread acceptance in any commercial markets or that demand will be sufficient to create a market large enough to produce significant revenue or earnings. Our future success depends, in part, upon business customers adopting biometrics generally, and our solution specifically.

Biometric technology is a new approach to Internet security which must be accepted in order for our WEB-key ® solution to generate significant revenue.

Our WEB-key ® authentication initiative represents a new approach to Internet security which has been adopted on a limited basis by companies which distribute goods, content or software applications over the Internet. The implementation of our WEB-key ® solution requires the distribution and use of a finger scanning device and integration of database and server side software. Although we believe our solutions provide a higher level of security for information transmitted over the Internet than existing traditional methods, unless business and consumer markets embrace the use of a scanning device and believe the benefits of increased accuracy outweigh implementation costs, our solution will not gain market acceptance.

Our software products may contain defects which will make it more difficult for us to establish and maintain customers.

Although we have completed the development of our core biometric technology, it has only been used by a limited number of business customers. Despite extensive testing during development, our software may contain undetected design faults and software errors, or “bugs” that are discovered only after it has been installed and used by a greater number of customers. Any such defect or error in new or existing software or applications could cause delays in delivering our technology or require design modifications. These could adversely affect our competitive position and cause us to lose potential customers or opportunities. Since our technologies are intended to be utilized to secure physical and electronic access, the effect of any such bugs or delays will likely have a detrimental impact on us. In addition, given that biometric technology generally, and our biometric technology specifically, has yet to gain widespread acceptance in the market, any delays would likely have a more detrimental impact on our business than if we were a more established company.

While we have commenced a significant sales and marketing effort, we have only begun to develop a significant distribution channel and may not have the resources or ability to sustain these efforts or generate any meaningful sales.

In order to generate revenue from our biometric products, we are dependent upon independent original equipment manufacturers, system integrators and application developers, which we do not control. As a result, it may be more difficult to generate sales.

We market our technology through licensing arrangements with:

- Original equipment manufacturers, system integrators and application developers which develop and market products and applications which can then be sold to end users
- Companies which distribute goods, services or software applications over the Internet

As a technology licensing company, our success will depend upon the ability of these manufacturers and developers to effectively integrate our technology into products and services which they market and sell. We have no control over

these licensees and cannot assure you that they have the financial, marketing or technical resources to successfully develop and distribute products or applications acceptable to end users or generate any meaningful revenue for us. These third parties may also offer the products of our competitors to end users.

We face intense competition and may not have the financial and human resources necessary to keep up with rapid technological changes, which may result in our technology becoming obsolete.

The Internet, facility access control and information security markets are subject to rapid technological change and intense competition. We compete with both established biometric companies and a significant number of startup enterprises as well as providers of more traditional methods of access control. Most of our competitors have substantially greater financial and marketing resources than we do and may independently develop superior technologies, which may result in our technology becoming less competitive or obsolete. We may not be able to keep pace with this change. If we are unable to develop new applications or enhance our existing technology in a timely manner in response to technological changes, we will be unable to compete in our chosen markets. In addition, if one or more other biometric technologies such as voice, face, iris, hand geometry or blood vessel recognition are widely adopted, it would significantly reduce the potential market for our fingerprint identification technology.

We depend on key employees and members of our management team, including our Chairman of the Board and Chief Executive Officer, in order to achieve our goals. We cannot assure you that we will be able to retain or attract such persons.

A loss of our current Chairman of the Board of Directors or Chief Executive Officer could severely and negatively impact our operations. Our consulting contract with Thomas J. Colatosti, our Chairman of the Board, expired in December 2011. Mr. Colatosti continues, however, to assist the Company in the areas of strategic planning and corporate finance. In addition, our employment contract with Michael W. DePasquale, our Chief Executive Officer, expires in March each year, and renews automatically for successive one year periods unless notice of non-renewal is provided by the Company. Although the contract does not prevent him from resigning, it does contain confidentiality and non-compete clauses which are intended to prevent him from working for a competitor within one year after leaving our Company. Our success depends on our ability to attract, train and retain employees with expertise in developing, marketing and selling software solutions. In order to successfully market our technology, we will need to retain additional engineering, technical support and marketing personnel. The market for such persons remains highly competitive and our limited financial resources will make it more difficult for us to recruit and retain qualified persons.

We cannot assure you that the intellectual property protection for our core technology provides a sustainable competitive advantage or barrier to entry against our competitors.

Our success and ability to compete is dependent in part upon proprietary rights to our technology. We rely primarily on a combination of patent, copyright and trademark laws, trade secrets and technical measures to protect our propriety rights. We have filed a patent application relating to both the optic technology and biometrics solution components of our technology wherein several claims have been allowed. Over the last few years, the U.S. Patent Office has issued us a series of patents for our Vector Segment fingerprint technology (VST), and our other core biometric analysis and identification technologies. We cannot assure you that any additional patents will be issued or that we will have the resources to protect any patent from infringement. Although we believe our technology does not currently infringe upon patents held by others, we cannot assure you that such infringements do not exist or will not exist in the future.

We may need to obtain additional financing to execute our business plan, which may not be available. If we are unable to raise additional capital or generate significant revenue, we may not be able to continue operations.

Since our inception, we have not generated significant, recurring revenue (other than revenue from acquired businesses) and have experienced substantial losses. In December 2010, we restructured the payment terms of our \$4,000,000 Note Receivable and exchanged all of our remaining shares of Preferred Stock and outstanding Convertible Notes for Secured Notes. In May 2011, our Note Receivable was paid in full to the Company, and the Company used all of these proceeds towards paying the balance of its Secured Promissory Notes.

If we are unable to generate sufficient revenue to meet our goals, we will need to obtain additional third-party financing to (i) conduct the sales, marketing and technical support necessary to execute our plan to substantially grow operations, increase revenue and serve a significant customer base; and (ii) provide working capital. Therefore, we may need to obtain additional financing through the issuance of debt or equity securities, or to restructure our financial position through similar transactions to those consummated during the 2010 to 2011 period.

We cannot assure you that we will ever be able to secure any such financing on terms acceptable to us. If we cannot obtain such financing, we may not be able to execute our business plan or continue operations.

We may not achieve sustainable profitability with respect to the biometric component of our business if we are unable to maintain, improve and develop the wireless data services we offer.

We believe that our future business prospects depend in part on our ability to maintain and improve our current services and to develop new ones on a timely basis. Our services will have to achieve market acceptance, maintain technological competitiveness and meet an expanding range of customer requirements. As a result of the complexities inherent in our service offerings, major new wireless data services and service enhancements require long development and testing periods. We may experience difficulties that could delay or prevent the successful development, introduction or marketing of new services and service enhancements. Additionally, our new services and service enhancements may not achieve market acceptance. If we cannot effectively develop and improve services we may not be able to recover our fixed costs or otherwise become profitable.

If we fail to adequately manage our resources, it could have a severe negative impact on our financial results or stock price.

We could be subject to fluctuations in technology spending by existing and potential customers. Accordingly, we will have to actively manage expenses in a rapidly changing economic environment. This could require reducing costs during economic downturns and selectively growing in periods of economic expansion. If we do not properly manage our resources in response to these conditions, our results of operations could be negatively impacted.

We granted a blanket security interest in all of our assets to the holders of our secured debt. If we are unable to make our required payments on such debt, or any other event of default occurs, it could have a material adverse effect on our business and operations, and the debt holders may foreclose on our assets.

As part of our secured debt financing transactions, we granted to the holders of such secured debt a blanket security interest in all of our assets, including assets of our subsidiary. See the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section of this report. In the event we default in payment on such debt, or any other event of default occurs under the relevant financing documents, and the default is not cured, 100% of the outstanding principal amount of the secured notes, plus accrued interest and fees will accelerate and be due and payable in full.

The cash required to pay such accelerated amounts on the secured notes following an event of default would most likely come out of our working capital. As we rely on our working capital for our day to day operations, such a default could have a material adverse effect on our business, operating results, or financial condition to such extent that we are forced to restructure, file for bankruptcy, sell assets or cease operations. In addition, upon an event of default, the holders of the secured debt could foreclose on our assets or exercise any other remedies available to them. If our assets were foreclosed upon, we would most likely be forced to file for bankruptcy or cease operations; stockholders may not receive any proceeds from disposition of our assets and may lose their entire investment in our stock.

Our obligations to the holder of our outstanding Secured Notes may adversely affect our ability to enter into potential significant transactions with other parties.

We will need to obtain the consent of the holder of our Secured Notes before we can take certain actions, including the issuance of any loan or debt secured by the assets of the Company. Accordingly, unless we obtain such consent, we may not be able to enter into certain transactions.

Risks Related To Our Common Stock

We have issued a substantial number of securities that are convertible into shares of our common stock which will result in substantial dilution to the ownership interests of our existing shareholders.

As of December 31, 2011, approximately 13,822,000 shares of our common stock were reserved for issuance upon exercise or conversion of the following securities (at conversion prices applicable as at December 31, 2010):

- 12,654,000 shares upon exercise of outstanding stock options and warrants;
- 1,168,000 shares upon exercise of options available for future grant under our existing option plans; and

The exercise or conversion of these securities will result in a significant increase in the number of outstanding shares and substantially dilute the ownership interests of our existing shareholders.

Applicable SEC Rules governing the trading of “penny stocks” limits the trading and liquidity of our common stock, which may affect the trading price of our common stock.

Our common stock currently trades on the OTC Bulletin Board. Since our common stock continues to trade below \$5.00 per share, our common stock is considered a “penny stock” and is subject to SEC rules and regulations, which impose limitations upon the manner in which our shares can be publicly traded. These regulations require the delivery, prior to any transaction involving a penny stock, of a disclosure schedule explaining the penny stock market and the associated risks. Under these regulations, certain brokers who recommend such securities to persons other than established customers or certain accredited investors must make a special written suitability determination regarding such a purchaser and receive such purchaser’s written agreement to a transaction prior to sale. These regulations have the effect of limiting the trading activity of our common stock and reducing the liquidity of an investment in our common stock.

We do not intend to pay dividends in the foreseeable future.

We have never declared or paid a dividend on our common stock. We intend to retain earnings, if any, for use in the operation and expansion of our business and, therefore, do not anticipate paying any dividends on our common stock in the foreseeable future.

The trading price of our common stock may be volatile.

The trading price of our shares has from time to time fluctuated widely and in the future may be subject to similar fluctuations. The trading price may be affected by a number of factors including the risk factors set forth in this Report as well as our operating results, financial condition, announcements of innovations or new products by us or our competitors, general conditions in the biometrics and access control industries, and other events or factors. Although we believe that approximately 15 registered broker dealers currently make a market in our common stock, we cannot assure you that any of these firms will continue to serve as market makers or have the financial capability to stabilize or support our common stock. A reduction in the number of market makers or the financial capability of any of these market makers could also result in a decrease in the trading volume of and price of our shares. In recent years broad stock market indices, in general, and the securities of technology companies, in particular, have experienced substantial price fluctuations. Such broad market fluctuations may adversely affect the future-trading price of our common stock.

ITEM 2. DESCRIPTION OF PROPERTY

We do not own any real estate. We conduct operations from leased premises in Eagan, Minnesota (6,822 square feet), Wall, New Jersey (4,179 square feet) and North Billerica, Massachusetts (shared services center). We believe our current facilities are adequate for the foreseeable future.

ITEM 3. LEGAL PROCEEDINGS

In the normal course of business, the Company periodically becomes involved in litigation. As of December 31, 2011, in the opinion of management, the Company had no pending litigation that would have a material adverse effect on the Company's financial position, results of operations or cash flows.

ITEM 4. MINE SAFETY DISCLOSURES

N/A

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock currently trades on the OTC Bulletin Board under the symbol "BKYP". The following table sets forth the range of high and low bid prices per share of our common stock for each of the calendar quarters identified below as reported by the OTC Bulletin Board. These quotations represent inter-dealer prices, without retail mark-up, markdown or commission, and may not represent actual transactions.

2011:	High	Low
Quarter ended December 31, 2011	\$ 0.14	\$ 0.06
Quarter ended September 30, 2011	0.14	0.10
Quarter ended June 30, 2011	0.16	0.13
Quarter ended March 31, 2011	0.19	0.14
2010:	High	Low
Quarter ended December 31, 2010	\$ 0.19	\$ 0.14
Quarter ended September 30, 2010	0.21	0.10
Quarter ended June 30, 2010	0.23	0.14
Quarter ended March 31, 2010	0.28	0.20

Holdings

As of April 4, 2012, the number of stockholders of record of our common stock was 122.

Dividends

We have not paid any cash dividends on our common stock to date, and have no intention of paying any cash dividends on our common stock in the foreseeable future. The declaration and payment of dividends on our common stock is also subject to the discretion of our Board of Directors and certain limitations imposed under the Delaware General Corporation Law. The timing, amount and form of dividends, if any, will depend on, among other things, our results of operations, financial condition, cash requirements and other factors deemed relevant by our Board of Directors.

Equity Compensation Plan Information

For information regarding our equity compensation plans, see Item 12 included in this Annual Report on Form 10-K.

Recent Sales of Unregistered Securities; use of Proceeds from Registered Securities

On December 31, 2010, the Company entered into a Securities Exchange Agreement with The Shaar Fund Ltd. ("Shaar") and Mr. Thomas J. Colatosti (collectively, the "Holders"), pursuant to which these investors agreed to exchange all of their outstanding shares of the Company's Series D Convertible Preferred Stock, including all accrued and unpaid dividends thereon, and the 7% Convertible Promissory Note dated as of December 28, 2009 issued by the Company to each of these investors, for new non-convertible 7% Secured Promissory Notes in the aggregate original principal amount of \$3,508,563. The Company also exchanged all existing 5,108,333 warrants previously issued by

the Company to Shaar for a new five-year warrant to allow Shaar to purchase up to an aggregate of 8,000,000 shares of the Company's common stock at an initial exercise price of \$0.30 per share. These securities were issued in a private placement transaction exempt from the registration requirements of the Securities Act pursuant to Section 4(2) thereof directly by the Company without engaging in any advertising or general solicitation of any kind and without payment of underwriting discounts or commissions to any person.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

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ITEM 6. SELECTED FINANCIAL DATA

N/A

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion And Analysis Of Financial Condition And Results Of Operations, and other parts of this Report contain forward-looking statements that involve risks and uncertainties. All forward-looking statements included in this Report are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of a number of factors, including those set forth in the section captioned "RISK FACTORS" in Item 1A and elsewhere in this Report. The following should be read in conjunction with our audited financial statements included elsewhere herein.

The following Management's Discussion And Analysis Of Financial Condition And Results Of Operations ("MD&A") is intended to help you understand BIO-key International (the "Company", "we", "us" or "our"). MD&A is provided as a supplement to and should be read in conjunction with our financial statements and the accompanying notes. Our MD&A includes the following sections:

OVERVIEW provides a description of our business, the major items that affected our business, and how we analyze our business. It then provides an analysis of our overall 2011 performance and a description of the significant events impacting 2011 and thereafter.

RESULTS OF OPERATIONS provides an analysis of the consolidated results of operations for 2011 compared to 2010.

LIQUIDITY AND CAPITAL RESOURCES provides an overview of our cash flows, financing, contractual obligations, and liquidity outlook.

CRITICAL ACCOUNTING POLICIES provides a discussion of our accounting policies that require critical judgment, assumptions and estimates.

RECENT ACCOUNTING STANDARDS provides a description of accounting standards which we have not yet been required to implement and may be applicable to our operations, as well as those significant accounting standards which were adopted during 2011 See Note A to the Consolidated Financial Statements included elsewhere in this Annual Report.

OVERVIEW

BIO-key develops and markets advanced fingerprint identification biometric technology and software solutions. We were among the initial pioneers in developing automated, finger identification technology that can be used without the aid of non-automated methods of identification such as a personal identification, password, token, smart card, ID card, credit card, passport, driver's license or other form of possession or knowledge based identification. This advanced BIO-key™ identification technology improves both the accuracy and speed of finger-based biometrics.

Through partnerships with OEMs, integrators, and solution providers, we provide biometric software solutions to private and public sector customers. BIO-key provides the ability to positively identify individuals in seconds before granting access to valuable corporate resources, web portals or applications. Powered by our patented Vector Segment Technology™ our VST™, WEB-key® and BSP development kits are fingerprint biometric solutions that provide true interoperability with all major reader manufacturers, enabling application developers and integrators to seamlessly integrate fingerprint biometrics into virtually any application.

While our growth has been sluggish due to market acceptance, and lengthy processes involved with building relationships with large integrators, we believe that due to current market conditions, specifically identity theft, we are well-positioned for growth as solutions empower users to take control of their identities in a way that cannot be replicated, stolen or mistaken for unauthorized use. Organizations that employ BIO-key's solutions to authenticate employees and protect company data also experience a measurable return on investment. For example, we have received a large order in the first quarter of 2012 in the blood bank industry that we believe will materially increase our sales in this industry.

RESULTS OF OPERATIONS

Consolidated Results of Operations

Two Year % trend

	Years ended December 31,			
	2011		2010	
Revenues				
Services	24	%	12	%
License fees and other	76	%	88	%
	100	%	100	%
Costs and other expenses				
Cost of services	5	%	3	%
Cost of license fees and other	19	%	13	%
	23	%	16	%
Gross Profit	77	%	84	%
Operating expenses				
Selling, general and administrative	86	%	88	%
Research, development and engineering	32	%	30	%
	118	%	118	%
Operating loss	-41	%	-34	%
Other income (deductions)				
Total other income (deductions)	-13	%	16	%
Loss from continuing operations	-54	%	-18	%
Income from discontinued operations			9	%
Net (loss) income	-54	%	-9	%

Revenues and Costs of goods sold

	2011	2010	2011 - 2010 \$ Chg	% Chg
Revenues				