UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT

TO FORM S-1

ON

FORM S-3 REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

VASCO Data Security International, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or organization)

36-4169320 (I.R.S. Employer Identification No.)

1901 South Meyers Road, Suite 210 Oakbrook Terrace, Illinois 60181 (630) 932-8844

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

T. Kendall Hunt Chairman and Chief Executive Officer VASCO Data Security International, Inc. 1901 South Meyers Road, Suite 210 Oakbrook, Illinois 60181 (630) 932-8844 (Name, address, including zip code, and telephone number, including area code, of agent for service)

> *Copy to:* Robert B. Murphy, Esq. Pepper Hamilton LLP Hamilton Square 600 14th Street, N.W. Washington, D.C. 20005 (202) 220-1200

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement and from time to time as determined by market conditions.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, please check the following box. \Box

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \Box

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If delivery of the prospectus is expected to be made pursuant to Rule 434, please check the following box. \Box

VASCO DATA SECURITY INTERNATIONAL, INC.

9,360,052 shares of common stock

The individuals identified on page 11 in this Prospectus, whom we refer to as the "selling stockholders," may use this Prospectus to offer and sell up to 9,360,052 shares of our common stock from time to time. Our registration of the offered shares of common stock does not mean that the selling stockholders will offer or sell any of the shares of common stock. We will receive no direct proceeds from the sale of the shares of common stock offered by the selling stockholders, but we will incur expenses in connection with the registration of such shares.

The selling stockholders may offer these shares of common stock through public or private transactions, at prevailing market prices or at privately negotiated prices. Selling stockholders may sell the offered shares of common stock directly or through agents or broker-dealers acting as principal or agent, or in a distribution by underwriters. If they use agents, underwriters or dealers to sell the offered shares of common stock, we will name them and describe their compensation in a supplement to this Prospectus.

The price of the common stock being offered under this Prospectus shall be determined by the prevailing market price of our common stock or in negotiated transactions. Our common stock is traded on the NASDAQ Capital Market under the symbol "VDSI." On March 29, 2007 the closing price of one share of our common stock was \$17.75.

Investing in the offered shares of common stock involves risks. You should carefully read the risk factors described on pages 5 to 11 of this Prospectus.

You should read this Prospectus, the documents that are incorporated by reference to this Prospectus and any Prospectus supplement carefully before you decide to invest. You should not assume that the information in this Prospectus is accurate as of any date other than the date on the front of this document.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this Prospectus is April [], 2007.

TABLE OF CONTENTS

	Page
About This Prospectus	3
Prospectus Summary	4
Risk Factors	5
Use Of Proceeds	10
Selling Stockholders	11
Plan Of Distribution	12
Legal Matters	13
<u>Experts</u>	13
Incorporation of Certain Information by Reference	14
Where You Can Find More Information	14
Forward-Looking Statements	14
This must be the fellowing to develop of the Community of the feeling projection to MARCO MARMAN MARMAN Serve	D' ' 1

This report contains the following trademarks of the Company, some of which are registered: VASCO, VACMAN, VACMAN Server, Digipass and Digipass Pack.

ABOUT THIS PROSPECTUS

This Prospectus is part of a registration statement ("Registration Statement") on Form S-3 that we filed with the Securities and Exchange Commission ("SEC") under the Securities Act of 1933, as amended ("Securities Act").

This Prospectus and any accompanying Prospectus supplement do not contain all of the information included in the Registration Statement. For further information, we refer you to the Registration Statement, including its exhibits, filed with the SEC. Statements about the contents of any document contained in this Prospectus and any accompanying Prospectus supplement are not necessarily complete. If SEC rules require that a document be filed as an exhibit to the Registration Statement, please see such document for a complete description of these matters. You should not assume that the information in this Prospectus supplement is accurate as of any date other than the date on the front of each document.

This Prospectus provides you with a general description of the offered shares of common stock. Each time any selling stockholder sells any of the offered shares of common stock to you, the selling stockholder will provide you with this Prospectus and a Prospectus supplement, if applicable, that will contain specific information about the terms of the offering. The Prospectus supplement also may add, update or change any information contained in this Prospectus. You should read both this Prospectus and any Prospectus supplement together with additional information described under the heading "Where You Can Find More Information" below.

As used in this Prospectus and the Registration Statement which this Prospectus is a part, references to "VASCO," "the Company," "we," "our," and "us" refer to VASCO Data Security International, Inc., and our consolidated subsidiaries, except where the context otherwise requires or as otherwise indicated.

-3-

PROSPECTUS SUMMARY

Our Company

We, through our operating subsidiaries, design, develop, market and support open standards-based hardware and software security systems that manage and secure access to information assets. We design, develop, market and support patented "Strong User Authentication" products for e-business and e-commerce. Our products enable secure financial transactions to be made over private enterprise networks and public networks, such as the Internet. Our Strong User Authentication is delivered via our hardware and software Digipass security products, (collectively "Digipasses") most of which incorporate an electronic signature capability, which guarantees the integrity of electronic transactions and data transmissions. Some of our Digipasses are compliant with the Europay MasterCard Visa ("EMV") standard and are compatible with MasterCard's and VISA's Chip Authentication Program (CAP). Some of our Digipass units are OATH compliant.

The backbone of our product range is VACMAN Controller. VACMAN Controller has been extended to support all VASCO authentication technologies, including passwords, dynamic password technology (Digipass), certificates and biometrics, on one unique platform. Our strategy is to become the full option, all-terrain authentication company.

For user access control, our VACMAN Middleware products limit application access to designated Digipass users. Digipass and VACMAN combine to provide greater flexibility and a more affordable means than competing products of authenticating to any network, including the Internet.

VASCO's product lines include:

- VACMAN: Core authentication platform, combining all technologies on one unique platform;
- · IdentiKey: VASCO's authentication server, combining the VACMAN core authentication platform with full server functionality;
- aXs GUARD: Leading authentication appliance services, combining Identikey with a wide variety of Internet communication solutions;
- Digipass: A suite of over 50 multi-application client e-signature software products, based on the world's most widely spread electronic client platforms;
- DigipassPlus: Authentication Services. Combines all VASCO products and solutions in an outsourced service offering. VASCO also offers related services under the DigipassPlus label, such as Fraud Detection and Analysis and the brand new VASCO Video Training.

Our target markets are the applications and their several hundred million users that utilize fixed passwords as security. Our event and time-based system generates a "one-time" password that changes with every use. As a result, when compared to fixed passwords, it substantially reduces the risk of unauthorized access to the application.

As of December 31, 2006, we had shipped approximately 32 million Digipass units since our inception. Our security solutions are sold worldwide through our direct sales force, as well as through distributors, resellers and systems integrators. We currently have more than 4,250 customers in more than 100 countries. Representative customers of our products include HSBC, Rabobank Nederland, ING Bank, Fortis Bank, Wachovia, Daimler Chrysler, Volvo and CoStar Group. In 2006, we sold to 1,553 new accounts of which 233 were banks and 1,320 were Enterprise Security customers. For full year 2005, we sold 821 new accounts including 89 new banks and 732 new Corporate Network Access accounts.

Corporate Information

We were incorporated in Delaware in 1997 and are the successor to VASCO Corp., a Delaware corporation. Our principal executive offices are located at 1901 South Meyers Road, Suite 210, Oakbrook Terrace, Illinois 60181, and the telephone number at that address is 630-932-8844. Our principal offices in Europe are located at Koningin Astridlaan 164, B-1780 Wemmel (Belgium), and the telephone number at that address is 32-2-456-98-10. We maintain a website at www.vasco.com. The information contained on our website does not constitute part of this Prospectus.

-4-

RISK FACTORS

There are a number of other factors that could affect future results. You should carefully consider the following factors as well as other information contained in this Prospectus. In addition, there are a number of less significant and other general risk factors that could affect our future results. If any of the following items were to occur; our business, financial condition or operating results could be materially and adversely affected.

Risks Related to Our Business

We had a history of operating losses and have a large accumulated deficit.

Although we have reported net income of \$12,587,000, \$7,701,000 and \$3,253,000 for the years ended December 31, 2006, 2005 and 2004, respectively, our accumulated deficit was \$20,398,000 at December 31, 2006.

Our revenue and cash receipts may not be sufficient to meet the operating needs of our business.

Our revenue and cash receipts may not be sufficient to meet the operating needs of the business. If this is the case, we may need to significantly reduce our workforce, sell certain of our assets, enter into strategic relationships or business combinations, discontinue some or all of our operations, or take other similar restructuring actions. While we expect that these actions would result in a reduction of recurring costs, they may also result in a reduction of recurring revenues and cash receipts. It is also likely that we would incur substantial non-recurring costs to implement one or more of these restructuring actions.

The sales cycle for our products and technology is long, and we may incur substantial expenses for sales that do not occur when anticipated.

The sales cycle for our products, which is the period of time between the identification of a potential customer and completion of the sale, is typically lengthy and subject to a number of significant risks over which we have little control. If revenue falls significantly below anticipated levels, our business would be seriously harmed.

A typical sales cycle in the Banking market is often three to six months and with larger Banking transactions can be eighteen months or more. Purchasing decisions for our products and systems may be subject to delay due to many factors that are not within our control, such as:

- The time required for a prospective customer to recognize the need for our products;
- The significant expense of many data security products and network systems;
- Customers' internal budgeting processes; and
- Internal procedures customers may require for the approval of large purchases.

We have a great dependence on a limited number of suppliers and the loss of their manufacturing capability could materially impact our operations.

In the event that the supply of components or finished products is interrupted or relations with any of our principal vendors is terminated, there could be a considerable delay in finding suitable replacement sources to manufacture our products at the same cost or at all. The majority of our products are manufactured by four independent vendors, one headquartered in Europe and the other three in Hong Kong. Our hardware Digipasses are assembled at facilities in mainland China. The importation of these products from China exposes us to the possibility of product supply disruption and increased costs in the event of changes in the policies of the Chinese government, political unrest or unstable economic conditions in China or developments in the United States that are adverse to trade, including enactment of protectionist legislation.

We have a significant dependence on major customers and losing any of these customers could result in a significant loss in revenues.

If we don't find other customers who generate significant future revenues, the unforeseen loss of one or more of our major customers, or the inability to maintain reasonable profit margins on sales to any of these customers, would have a material adverse effect on our results of operations and financial condition.

-5-

Our success depends on establishing and maintaining strategic relationships with other companies to develop, market and distribute our technology and products and, in some cases, to incorporate our technology into their products.

Part of our business strategy is to enter into strategic alliances and other cooperative arrangements with other companies in our industry. We currently are involved in cooperative efforts with respect to the incorporation of our products into products of others, research and development efforts, marketing efforts and reseller arrangements. None of these relationships are exclusive, and some of our strategic partners also have cooperative relationships with certain of our competitors. If we are unable to enter cooperative arrangements in the future or if we lose any of our current strategic or cooperative relationships, our business could be harmed. We do not control the time and resources devoted to such activities by parties with whom we have relationships. In addition, we may not have the resources available to satisfy our commitments, which may adversely affect these relationships. These relationships may not continue, may not be commercially successful, or may require our expenditure of significant financial, personnel and administrative resources from time to time. Further, certain of our products and services of our strategic partners.

Any acquisitions we make could disrupt our business and harm our financial condition.

We may make investments in complementary companies, products or technologies. Should we do so, our failure to successfully manage future acquisitions could seriously harm our operating results. In the event of any future purchases, we will face additional financial and operational risks, including:

- Difficulty in assimilating the operations, technology and personnel of acquired companies;
- Disruption in our business because of the allocation of resources to consummate these transactions and the diversion of management's attention from our existing business;
- Difficulty in retaining key technical and managerial personnel from acquired companies;
- Dilution of our stockholders, if we issue equity to fund these transactions;
- Assumption of operating losses, increased expenses and liabilities; and
- Our relationships with existing employees, customers and business partners may be weakened or terminated as a result of these transactions.

Risks Related to the Market

We face significant competition and if we lose or fail to gain market share our financial results will suffer.

The market for computer and network security products is highly competitive. Our competitors include organizations that provide computer and network security products based upon approaches similar to and different from those that we employ such as RSA Security (recently acquired by EMC Corporation), ActivIdentity, Xiring, Todos Data Systems and Kobil Systems. Many of our competitors have significantly greater financial, marketing, technical and other competitive resources than we do. As a result, our competitors may be able to adapt more quickly to new or emerging technologies and changes in customer requirements, or to devote greater resources to the promotion and sale of their products.

We may need additional capital in the future and our failure to obtain capital would interfere with our growth strategy.

Our ability to obtain financing will depend on a number of factors, including market conditions, our operating performance and investor interest. These factors may make the timing, amount, terms and conditions of any financing unattractive. They may also result in our incurring additional indebtedness or accepting stockholder dilution. If adequate funds are not available or are not available on acceptable terms, we may have to forego strategic acquisitions or investments, defer our product development activities, or delay the introduction of new products.

-6-

We experience variations in quarterly operating results and are subject to seasonality, both of which may result in a volatile stock price.

In the future, as in the past, our quarterly operating results may vary significantly resulting in a volatile stock price. Factors affecting our operating results include:

- The level of competition;
- The size, timing, cancellation or rescheduling of significant orders;
- New product announcements or introductions by competitors;
- Technological changes in the market for data security products including the adoption of new technologies and standards;
- Changes in pricing by competitors;
- Our ability to develop, introduce and market new products and product enhancements on a timely basis, if at all;
- Component costs and availability;
- Our success in expanding our sales and marketing programs;
- Market acceptance of new products and product enhancements;
- Changes in foreign currency exchange rates; and
- General economic trends.

We also experience seasonality in all markets. These seasonal trends are most notable in the summer months, particularly in Europe, when many businesses defer purchase decisions.

A small group of persons control a substantial amount of our common stock and could delay or prevent a change of control.

Our Board of Directors, our officers and their immediate families and related entities beneficially own approximately 28.6%, with Mr. T. Kendall Hunt controlling approximately 26.7%, of the outstanding shares of our common stock. As the Chairman of the Board of Directors and our largest stockholder, Mr. Hunt may exercise substantial control over our future direction and operation and such concentration of control may have the effect of discouraging, delaying or preventing a change in control and may also have an adverse effect on the market price of our common stock.

Our stock price may be volatile and you may not be able to resell your shares at or above acceptable prices.

The market price of our common stock may fluctuate significantly in response to factors, some of which are beyond our control, including the following:

- Actual or anticipated fluctuations in our operating results;
- Changes in market valuations of other technology companies;
- Announcements by us or our competitors of significant technical innovations, contracts, acquisitions, strategic partnerships, joint ventures or capital commitments;
- Additions or departures of key personnel;
- Future sales of common stock;
- Any deviations in net revenues or in losses from levels expected by the investment community; and
- Trading volume fluctuations.

Certain provisions of our charter and of Delaware law make a takeover of our company more difficult.

Our corporate charter and Delaware law contain provisions, such as a class of authorized but unissued preferred stock which may be issued by our board without stockholder approval that might enable our management to resist a takeover of our company. Delaware law also limits business combinations with interested stockholders. These provisions might discourage, delay or prevent a change in control or a change in our management. These

-7-

provisions could also discourage proxy contests, and make it more difficult for you and other stockholders to elect directors and take other corporate actions. The existence of these provisions could limit the price that investors might be willing to pay in the future for shares of our common stock.

Future issuances of blank check preferred stock may reduce voting power of common stock and may have anti-takeover effects that could prevent a change in control.

Our corporate charter authorizes the issuance of up to 500,000 shares of preferred stock with such designations, rights, powers and preferences as may be determined from time to time by our Board of Directors, including such dividend, liquidation, conversion, voting or other rights, powers and preferences as may be determined from time to time by the Board of Directors without further stockholder approval. The issuance of preferred stock could adversely affect the voting power or other rights of the holders of common stock. In addition, the authorized shares of preferred stock and common stock could be utilized, under certain circumstances, as a method of discouraging, delaying or preventing a change in control.

Risks Related to Technology and Intellectual Property

Technological changes occur rapidly in our industry and our development of new products is critical to maintain our revenues.

The introduction by our competitors of products embodying new technologies and the emergence of new industry standards could render our existing products obsolete and unmarketable. Our future revenue growth and operating profit will depend in part upon our ability to enhance our current products and develop innovative products to distinguish ourselves from the competition and to meet customers' changing needs in the data security industry. We cannot assure you that security-related product developments and technology innovations by others will not adversely affect our competitive position or that we will be able to successfully anticipate or adapt to changing technology, industry standards or customer requirements on a timely basis.

We must continue to attract and retain highly skilled technical personnel for our research and development department.

The market for highly skilled technicians in Europe, Asia, Australia and the United States is highly competitive. If we fail to attract, train, assimilate and retain qualified technical personnel for our research and development department, we will experience delays in introductions of new or modified products, loss of clients and market share and a reduction in revenues.

We cannot be certain that our research and development activities will be successful.

While management is committed to enhancing our current product offerings and introducing new products, we cannot be certain that our research and development activities will be successful. Furthermore, we may not have sufficient financial resources to identify and develop new technologies and bring new products to market in a timely and cost effective manner, and we cannot ensure that any such products will be commercially successful if and when they are introduced.

We depend significantly upon our proprietary technology and intellectual property and the failure to protect our proprietary rights could require us to redesign our products or require us to enter into royalty or licensing agreements, any of which could reduce revenue and increase our operating costs.

We currently rely on a combination of patent, copyright and trademark laws, trade secrets, confidentiality agreements and contractual provisions to protect our proprietary rights. We seek to protect our software, documentation and other written materials under trade secret and copyright laws, which afford only limited protection, and generally enter into confidentiality and nondisclosure agreements with our employees and with key vendors and suppliers.

There has been substantial litigation in the technology industry regarding intellectual property rights, and we may have to litigate to protect our proprietary technology. We expect that companies in the computer and information security market will increasingly be subject to infringement claims as the number of products and competitors increases. Any such claims or litigation may be time-consuming and costly, cause product shipment delays, require us to redesign our products or require us to enter into royalty or licensing agreements, any of which could reduce revenue and increase our operating costs.

-8-

Our patents may not provide us with competitive advantages.

We hold several patents in the United States and in some European countries, which cover multiple aspects of our technology. The majority of our patents cover the Digipass product line. These patents expire between 2007 and 2022. Only one minor patent expired in 2006. In addition to the issued patents, we also have several patents pending in the United States and other countries. There can be no assurance that we will continue to develop proprietary products or technologies that are patentable, that any issued patent will provide us with any competitive advantages or will not be challenged by third parties, or that patents of others will not hinder our competitive advantage. Although certain of our security token technologies are patented, there are other organizations that offer token-type password generators incorporating challenge-response or response-only approaches that employ different technological solutions and compete with us for market share.

We are subject to product liability risks.

A malfunction of or design defect in our products which results in a breach of a customer's data security could result in tort or warranty claims against us. We do not presently maintain product liability insurance for these types of claims.

There is significant government regulation of technology exports and to the extent we cannot meet the requirements of the regulations we may be prohibited from exporting some of our products, which could negatively impact our revenues.

Our international sales and operations are subject to risks such as the imposition of government controls, new or changed export license requirements, restrictions on the export of critical technology, trade restrictions and changes in tariffs. If we become unable to obtain foreign regulatory approvals on a timely basis our business in those countries would no longer exist and our revenues would decrease dramatically. Certain of our products are subject to export controls under U.S. law. The list of products and countries for which export approval is required, and the regulatory policies with respect thereto may be revised from time to time and our inability to obtain required approvals under these regulations could materially adversely affect our ability to make international sales.

We employ cryptographic technology in our authentication products that uses complex mathematical formulations to establish network security systems.

Many of our products are based on cryptographic technology. With cryptographic technology, a user is given a key that is required to encrypt and decode messages. The security afforded by this technology depends on the integrity of a user's key and in part on the application of algorithms, which are advanced mathematical factoring equations. These codes may eventually be broken or become subject to government regulation regarding their use, which would render our technology and products less effective. The occurrence of any one of the following could result in a decline in demand for our technology and products:

- Any significant advance in techniques for attacking cryptographic systems, including the development of an easy factoring method or faster, more powerful computers;
- Publicity of the successful decoding of cryptographic messages or the misappropriation of keys; and
- Increased government regulation limiting the use, scope or strength of cryptography.

Risks Related to International Operations

We face a number of risks associated with our international operations, any or all of which could result in a disruption in our business and a decrease in our revenues.

Our business internationally is subject to a number of risks any or all of which could result in a disruption in our business and a decrease in our revenues. These include:

- Inconsistent regulations and unexpected changes in regulatory requirements;
- Difficulties and costs of staffing and managing international operations;
- Potentially adverse tax consequences;

-9-

- Wage and price controls;
- Uncertain protection for intellectual property rights;
- Imposition of trade barriers;
- Differing technology standards;
- Uncertain demand for electronic commerce;
- Linguistic and cultural differences;
- Political instability; and
- Social unrest.

We are subject to foreign exchange risks, and improper management of that risk could result in large cash losses.

Because a significant number of our principal customers are located outside the United States, we expect that international sales will continue to generate a significant portion of our total revenue. We are subject to foreign exchange risks because the majority of our costs are denominated in U.S. dollars, whereas a significant portion of the sales and expenses of our European operating subsidiaries are denominated in various foreign currencies. A decrease in the value of any of these foreign currencies relative to the U.S. dollar could affect the profitability in U.S. dollars of our products sold in these markets. We do not currently hold forward exchange contracts to exchange foreign currencies for U.S. dollars to offset currency rate fluctuations.

U.S. investors may have difficulties in making claims for any breach of their rights as holders of shares because some of our assets and executives are not located in the United States.

Several of our executives are residents of countries outside the United States, and a substantial portion of our assets and those of some of our executives are located in countries outside the United States. As a result, it may not be possible for investors to affect service of process on those persons located countries outside the United States, or to enforce judgments against some of our executives based upon the securities or other laws of jurisdictions other than Belgium. Moreover, we believe that under Belgian law there exists certain restrictions on the enforceability in Belgium in original actions, or in actions of enforcement of judgments rendered against us in courts of outside jurisdictions that are a party to the Brussels Convention on Jurisdiction and the Enforcement of Judgments in Civil and Commercial Matters (as amended). Actions for enforcement of such judgments may be successful only if the Belgian court confirms the substantive correctness of the judgment of such court, and is satisfied:

- That the judgment is not contrary to the principles of public policy in Belgium or rules of Belgian public law;
- That the judgment did not violate the rights of the defendant;
- That the judgment is final under applicable law;
- That the court did not accept its jurisdiction solely on the basis of the nationality of the plaintiff; and
- As to the authenticity of the text of the judgment submitted to it.

Judgments rendered in the courts of parties to the Brussels Convention will be enforceable by the courts of Belgium without reexamination of the merits of the case provided such judgment is final and otherwise satisfies all of the conditions provided for in this Convention. If proceedings have been brought in one country, however, new proceedings in another country may be barred.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the shares of our common stock by the selling stockholders. If warrants are held by a selling stockholder and are exercised for cash, we intend to use the net proceeds generated by such warrant exercise for working capital and general corporate purposes in the ordinary course of business. Temporarily, we may invest the net proceeds from the exercise of the warrants, if any, in high grade short-term interest bearing investments.

-10-

SELLING STOCKHOLDERS

We are registering 9,360,052 shares of common stock for resale by the selling stockholders. The selling stockholders may resell the shares of common stock covered by this Prospectus as provided under the section entitled "Plan of Distribution" and in any applicable Prospectus supplement.

The table below sets forth the beneficial ownership of our common stock by the selling stockholders as of March 31, 2007. Beneficial ownership includes shares of outstanding common stock as of that date, and shares of common stock that a selling stockholder has the right to acquire within 60 days. Unless otherwise indicated, the selling stockholders have the sole power to direct the voting and investment over the shares owned by them. Except as indicated above, the number of shares that may be actually sold by any selling stockholder will be determined by the selling stockholder. Because the selling stockholders may sell all, some or none of the shares of common stock which they hold, and because the offering contemplated by this Prospectus is not currently being underwritten, no estimate can be given as to the number of or percentage of total shares of common stock that will be held by the selling stockholders upon termination of the offering. Percentage ownership in the following table is based on 36,888,224 shares of common stock outstanding on March 31, 2007.

Names	Number of Common Shares Beneficially Owned Prior to Offering	Percentage of Shares Owned Before the Offering	Maximum Number of Common Shares Offered Hereby	Percentage of Common Shares Beneficially Owned after the Offering
Estate of Barbara Jean Hunt, T. Kendall Hunt, Executor (1) 1901 S. Meyers Rd., Suite 210 Oakbrook Terrace, IL 60181	1,011,300	2.7%	1,011,300	0%
T. Kendall Hunt Charitable Remainder Trust (1) 1901 S. Meyers Rd., Suite 210 Oakbrook Terrace, IL 60181	100,000	*	100,000	0%
T. Kendall Hunt (1) 1901 S. Meyers Rd., Suite 210 Oakbrook Terrace, IL 60181	9,880,052(2)	26.4%	9,360,052	1.4%

* Less than 1%

(1) Mr. T. Kendall Hunt is the Chairman of our Board of Directors and Chief Executive Officer of VASCO. Barbara Jean Hunt was Mr. Hunt's spouse and is deceased.

(2) Includes 100,000 shares held in the T. Kendall Hunt Charitable Remainder Trust and 1,011,300 shares held by the estate of Barbara J. Hunt, with Mr. Hunt as executor of the estate, as to which shares Mr. Hunt disclaims beneficial ownership. The amount also includes 520,000 shares that may be acquired pursuant to options which are exercisable at March 31, 2007 or become exercisable within 60 days.

-11-

PLAN OF DISTRIBUTION

We are registering the shares of common stock on behalf of the selling stockholders identified on page 12 of this Prospectus. The selling stockholders, as used in this Prospectus, include donees, pledgees, transferees or other successors in interest who may receive shares from the selling stockholders after the date of this Prospectus. The selling stockholders will act independently of us in making decisions with respect to the timing, manner and size of each sale of the common stock covered by this Prospectus. The selling stockholders may offer their shares of our common stock at various times in one or more of the following transactions:

- In ordinary broker's transactions on the Nasdaq Small Cap Market or any national securities exchange on which our common stock may be listed at the time of sale;
- In the over-the-counter market;
- In private transactions other than in the over-the-counter market;
- In connection with short sales of other shares of our common stock in which shares are redelivered to close out positioning;
- By pledge to secure debts and other obligations;
- In connection with the writing of non-traded and exchange-traded call options, in hedge transactions and in settlement of other transactions in standardized or over-the-counter options; or
- In a combination of any of the above transactions or by any other legally available means.

The selling stockholders may sell their shares of our common stock at market prices prevailing at the time of sale, at prices related to the prevailing market prices, at negotiated prices or at fixed prices. The selling stockholders may, but need not, use broker-dealers to sell their shares of our common stock. If broker-dealers are used, such broker-dealers will either receive discounts or commissions from the selling stockholders, or they will receive commissions from purchasers of shares of our common stock for whom they acted as agents. This compensation may exceed customary commissions.

The selling stockholders also may resell all or a portion of the shares of our common stock in open market transactions in reliance upon Rule 144 under the Securities Act, provided that such selling stockholders meet the criteria and conform to the requirements of that rule. The selling stockholders and the broker-dealers to or through whom sale of the shares of our common stock may be made could be deemed to be "underwriters" within the meaning of Section 2(a)(11) of Securities Act, and their commissions or discounts and other compensation received in connection with the sale of the shares may be regarded as underwriters' compensation, if the SEC determines that they purchased the shares in order to resell them to the public. To the extent that any selling stockholder is an affiliate of a broker-dealer, and such selling stockholder did not acquire their securities in the ordinary course of business or had an agreement or understanding to dispose of the securities, such selling stockholder is designated as an "underwriter" within the meaning of the Securities Act.

The selling stockholders have not advised us of any specific plans for the distribution of the shares of our common stock covered by this Prospectus. When and if we are notified by any selling stockholder that any material arrangement has been entered into with a broker-dealer or underwriter for the sale of a material portion of the shares covered by this Prospectus, a post-effective amendment to the Registration Statement will be filed with the SEC. This amendment will include the following information:

- The name of the participating broker-dealer(s) or underwriters;
- The number of shares involved;
- The price or prices at which the shares were sold by the selling stockholder;

-12-

- The commissions paid or discounts or concessions allowed by the selling stockholder to the broker-dealers or underwriters; and
- Other material information.

Under agreements which may be entered into by the selling stockholders, underwriters who participate in the distribution of shares may be entitled to indemnification by the selling stockholders against certain liabilities, including liabilities under the Securities Act. We may also agree to indemnify, in certain circumstances, the selling stockholders and certain control and other persons related to the foregoing persons against certain liabilities under the Securities Act.

We have advised the selling stockholders that the anti-manipulation rules promulgated under the Securities Exchange Act of 1934, as amended ("Exchange Act"), including Regulation M, may apply to sales of the shares offered by the selling stockholders. We have agreed to pay all costs relating to the registration of the shares. Any commissions or other fees payable to broker-dealers or otherwise in connection with any sale of the shares will be paid by the selling stockholders or other party selling the shares.

LEGAL MATTERS

Certain legal matters in connection with the securities will be passed upon for us by the law firm of Pepper Hamilton LLP.

EXPERTS

The consolidated financial statements and schedules of VASCO Data Security International, Inc. and subsidiaries (the Company) as of December 31, 2006 and 2005, and for each of the years in the three-year period ended December 31, 2006, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2006 have been incorporated by reference herein in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The audit report on management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting as of December 31, 2006, contains an explanatory paragraph that states the Company acquired Logico Smart Card Solutions (Logico) and Able N.V. (Able) during 2006, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2006, Logico and Able's internal control over financial reporting associated with total assets of \$4.8 million and \$8.2 million, respectively, and total revenues of \$191,000 and \$533,000, respectively, included in the consolidated financial statements of the Company as of and for the year ended December 31, 2006. The audit report on the audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Logico and Able

The audit report on the consolidated financial statements refers to the Company's adoption of the provisions of Statement of Financial Accounting Standards No. 123R, Share-Based Payment, modifying share-based compensation in 2006.

-13-

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring to those documents. The information incorporated by reference is considered to be part of this Prospectus, and the information that we file at a later date with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below as well as any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act:

- our annual report on Form 10-K for the fiscal year ended December 31, 2006;
- the description of our common stock which is contained in our Registration Statement on Form S-4 (SEC File No. 333-35563), including any
 amendment or reports filed for the purpose of updating this description; and
- our current reports on Form 8-K filed on the following dates: February 21, 2007 and March 2, 2007.

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address: VASCO Data Security International, Inc., 1901 South Meyers Road, Suite 210, Oakbrook Terrace, Illinois 60181, Attention: Corporate Secretary, 630-932-8844.

You should rely only on the information incorporated by reference or provided in this prospectus or the applicable prospectus supplement. We have not authorized anyone else to provide you with different information. The selling stockholders are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or the applicable prospectus supplement is accurate as of any date other than as of its date.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act. We file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at the SEC's principal office at Room 1580, 100 F Street, N.E., Washington, D.C. 20549. You may obtain information on the operation of this public reference room by calling 1-800-SEC-0330. Our SEC filings are also available to the public from the SEC's web site at http://www.sec.gov. In addition, any of our SEC filings may also be inspected and copied at the offices of The Nasdaq Stock Market, Inc., 9801 Washingtonian Blvd., Gaithersburg, MD 20878.

We have filed with the SEC a Registration Statement on Form S-3 covering the securities offered by this Prospectus. You should be aware that this Prospectus does not contain all of the information contained or incorporated by reference to that Registration Statement and its exhibits and schedules, particular portions of which have been omitted as permitted by the SEC rules. For further information about us and our securities, we refer you to the Registration Statement and its exhibits and schedules. You may inspect and obtain the Registration Statement, including exhibits, schedules, reports and other information we have filed with the SEC, as described in the preceding paragraph. Statements contained in this Prospectus concerning the contents of any document to which we refer you are not necessarily complete, and in each instance we refer you to the applicable document filed with the SEC for more complete information.

FORWARD-LOOKING STATEMENTS

This Prospectus, any Prospectus supplement, and the documents incorporated by reference herein include forward-looking statements within the meaning of Section 27A of the Securities Act, and Section 21E of the

Exchange Act. Forward-looking statements are those that predict or describe future events or trends and that do not relate solely to historical matters. You can generally identify forward-looking statements as statements containing the words "believe," "expect," "will," "anticipate," "intend," "estimate," "project," "plan," "assume" or other similar expressions, although not all forward-looking statements contain these identifying words. All statements contained or incorporated by reference to this Prospectus and any Prospectus supplement regarding our future strategy, future operations, projected financial position, estimated future revenues, projected costs, future prospects and results that might be obtained by pursuing management's current plans and objectives are forward-looking statements.

Certain of these statements are described in the risk factors set forth in the applicable Prospectus supplement and in the reports we file with the SEC that are incorporated by reference to this Prospectus. You should not place undue reliance on our forward-looking statements because the matters they describe are subject to known and unknown risks, uncertainties and other unpredictable factors, many of which are beyond our control. Our forward-looking statements are based on the information currently available to us and speak only as of the date on the cover of this Prospectus, the date of any Prospectus supplement, or, in the case of forward-looking statements incorporated by reference, as of the date of the filing that includes the statement. New risks and uncertainties arise from time to time, and it is impossible for us to predict these matters or how they may affect us. Over time, our actual results, performance or achievements will likely differ from the anticipated results, performance or achievements that are expressed or implied by our forward-looking statements, and such difference might be significant and materially adverse to our securityholders. We have no duty to, and do not intend to, update or revise the forward-looking statements in this Prospectus or the date of any Prospectus supplement.

-15-

PROSPECTUS

VASCO DATA SECURITY INTERNATIONAL, INC.

9,360,052 Shares of Common Stock

April [__], 2007

No dealer, salesperson or other individual has been authorized to give any information or to make any representations not contained in this Prospectus in connection with the offering covered by this Prospectus. If given or made, such information or representations must not be relied upon as having been authorized by us or any Selling Shareholder. This Prospectus does not constitute an offer to sell, or a solicitation of an offer to buy, the shares of Common Stock, in any jurisdiction where, or to any person to whom, it is unlawful to make any such offer or solicitation. Neither the delivery of this Prospectus nor any offer or sale made hereunder shall, under any circumstances, create an implication that there has not been any change in the facts set forth in this Prospectus or in our affairs since the date hereof.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses Of Issuance And Distribution

The following table sets forth the various incremental expenses payable by us in connection with the sale and distribution of the securities offered in this post-effective amendment. All of the amounts shown are estimated except for the Securities and Exchange Commission (the "SEC") registration fee.

Securities and Exchange Commission Registration fee	\$ 0
Printing expenses	5,000
Legal fees and expenses	15,000
Accounting fees and expenses	10,000
Miscellaneous expenses	0
Total	\$ 30,000

Item 15. Indemnification Of Officers And Directors

Section 145 of the Delaware General Corporation Law ("DGCL") provides that a corporation may indemnify directors, officers, employees and agents against expenses (including attorneys' fees), judgments, fines, and amounts paid in settlement in connection with specified actions, suits, or proceedings whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation a - "derivative action"), if they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action or proceeding, had no reasonable cause to believe their conduct was unlawful. A similar standard is applicable in the case of derivative actions, except that indemnification is permitted only for expenses (including attorneys' fees) incurred in connection with the defense or settlement of such action, and the statute requires court approval before there can be any indemnification for expenses where the person seeking indemnification has been found liable to the corporation. The statute provides that it is not exclusive of other indemnification that may be granted by a corporation's charter, bylaws, disinterested director vote, stockholder vote, agreement, or otherwise.

Article IV of our bylaws provides that we shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "indemnitee") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "proceeding"), by reason of the fact that he, or a person for whom he is the legal representative, is or was a director or officer of ours, or is or was serving at our written request as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees as incurred) reasonably incurred by him. Notwithstanding the preceding sentence, except as otherwise provided in Section 3 of Article IV of the bylaws, we shall be required to indemnify an indemnitee in connection with a proceeding (or part thereof) commenced by such indemnitee only if the commencement of such proceeding (or part thereof) by the indemnitee was authorized by our Board of Directors.

II-1-

Item 16. Exhibits

EXHIBIT NO.	DESCRIPTION
3.1(1)	Certificate of Incorporation
3.2(2)	Bylaws, as amended
23.1 ++	Consent of KPMG LLP
23.2 +	Consent of Pepper Hamilton LLP (contained in Exhibit 5.1)
24.1 ++	Power of Attorney (included on signature page hereto)

+ Previously filed.

++ Filed herewith.

(1) Incorporated by reference to VASCO's Registration Statement on Form S-4 (File No. 333-35563) filed on September 12, 1997.

(2) Incorporated by reference to VASCO's Annual Report on Form 10-K filed on May 5, 1998.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the Prospectus any facts or events arising after the effective date of this Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in this Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective Registration Statement;
 - (iii) To include any material information with respect to the Plan of Distribution not previously disclosed in this Registration Statement or any material change to such information in this Registration Statement;

provided, however, that subparagraphs (i) and (ii) do not apply if the Registration Statement is on Form S-3, Form S-8 or Form F-3, and the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act, that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new Registration Statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

II-2-

(b) The undersigned registrant hereby further undertakes that, for the purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act, that is incorporated by reference in this Registration Statement shall be deemed to be a new Registration Statement relating to the securities offered herein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act, may be permitted to trustees, officers and controlling persons of the registrant pursuant to the provisions described under Item 15 of this Registration Statement, or otherwise (other than insurance), the registrant has been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in such Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a trustee, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such trustee, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by them is against public policy as expressed in such Act and will be governed by the final adjudication of such issue.

II-3-

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in DuPage County, State of Illinois, on the 24th day of April, 2007.

VASCO DATA SECURITY INTERNATIONAL, INC.

By: /s/ T. Kendall Hunt

T. Kendall Hunt

Chief Executive Officer and Chairman of the Board of Directors

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed below by the following persons in the capacities and on the date indicated.

NAME		TITLE	DATE
/s/	T. Kendall Hunt	Chief Executive Officer and Chairman of	
	T. Kendall Hunt	the Board of Directors	
		(Principal Executive Officer)	April 24, 2007
/s/	Clifford K. Bown	Executive Vice President and Chief Financial	
	Clifford K. Bown	Officer (Principal Financial and Accounting Officer)	April 24, 2007
	*	Director	
	Michael P. Cullinane		April 24, 2007
	*	Director	
	Jean K. Holley		April 24, 2007
	*	Director	
	John R. Walter		April 24, 2007
	*	Director	
	John N. Fox, Jr.		April 24, 2007
	* B	y: /s/ T.KENDALL HUNT	
		T. Kendall Hunt, Attorney-in-Fact	

II-4-

EXHIBIT INDEX

EXHIBIT NO.	DESCRIPTION
3.1 (1)	Certificate of Incorporation
3.2 (2)	Bylaws, as amended
5.1 +	Opinion of Pepper Hamilton LLP
23.1 ++	Consent of KPMG LLP
23.2 +	Consent of Pepper Hamilton LLP (contained in Exhibit 5.1)
24.1 ++	Power of Attorney (included on signature page hereto)

Previously filed. Filed herewith. $^+$

++

Incorporated by reference to VASCO's Registration Statement on Form S-4 (File No. 333-35563) filed on September 12, 1997. (1)

(2) Incorporated by reference to VASCO's Annual Report on Form 10-K filed on May 5, 1998.

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statement on Form S-3 of VASCO Data Security International, Inc. and subsidiaries (the Company), of our reports dated March 15, 2007, with respect to the consolidated balance sheets of the Company as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders' equity, cash flows and comprehensive income for each of the years in the three-year period ended December 31, 2006, and all related financial statement schedules, management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2006, which reports appear in the December 31, 2006, annual report on Form 10-K of the Company. We also consent to the reference of our Firm under the heading "Experts" in the prospectus.

Our report dated March 15, 2007, on management's assessment of the effectiveness of internal control over financial reporting and the effectiveness of internal control over financial reporting as of December 31, 2006, contains an explanatory paragraph that states the Company acquired Logico Smart Card Solutions (Logico) and Able N.V. (Able) during 2006, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2006, Logico and Able's internal control over financial reporting associated with total assets of \$4.8 million and \$8.2 million, respectively, and total revenues of \$191,000 and \$533,000, respectively, included in the consolidated financial statements of the Company as of and for the year ended December 31, 2006. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Logico and Able.

Our report on the consolidated financial statements refers to the Company's adoption of the provisions of Statement of Financial Accounting Standards No. 123R, *Share-Based Payment*, modifying share-based compensation in 2006.

/s/ KPMG LLP

Chicago, Illinois 60601 April 23, 2007