

Document Security Systems, Inc. (NYSE American: DSS)

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Who We Are

- Over 30 years in product protection and document security space
- Initial technology invented by Ralph Wicker in 1987
- Develop technologies, software and products that deter counterfeiting, product diversion, and warranty fraud
- We secure the world's most important brands, including projects with:
 - US Government Agencies
 - Foreign Governments
 - o Fortune 500 Companies
 - Small and Medium Businesses



Corporate Mission

To help companies, financial institutions & governments eliminate fraud

Document Fraud

- Anti-copying/scanning technology
- Hidden image
- Authentication technology

Product Fraud

- Digital authentication
- Data analysis
- Hidden image technology

Credential Fraud

- Secure identification
- RFID credentials
- Advanced access control



Leadership Team



HENG FAI AMBROSE CHAN
Chairman of the Board

An accomplished global business veteran of more than 40 years Mr. Chan Heng Fai specializes in financial restructuring and corporate transformation to unlock value and unleash entrepreneurial zeal while managing risk. He has successfully restructured more than 35 corporations in different industries and countries.

Some of the remarkable companies that he has built, rescued or transformed include American Pacific Bank (USA), China Gas Holdings Limited and Heng Fai Enterprises Limited both (listed on The Stock Exchange of Hong Kong), Global Med Technologies, Inc. (U.S. medical software company exited for US\$60 million), Singhaiyi Group Ltd (listed on the Singapore Exchange).

More details of his achievements and track record can be found at http://fai185.com/.

Heng Fai Ambrose Chan has served as a director of the Company since February 12, 2017.

Leadership Team



FRANK D. HEUSZEL
CEO and Interim CFO, Director

Mr. Heuszel is a Certified Public Accountant, Certified Internal Auditor and a Practicing attorney. Mr. Heuszel has been in banking his entire professional career and as a banker he has served as Auditor, CFO, Manger of Special Assets, Creditor Officer and General Counsel.

Excellent banking reputation as a strong credit officer, special assets manager, director of compliance and banking operation officer.

Grew and managed serviced Bank's assets from \$3.5 Billion to \$65 Billion over 21 years. Leading a Special Assets Group team which service problem loan portfolio consisting of over 2,300 loans. On average his department managed a \$4.6 plus billion commercial problem loan portfolio.

Specialize in design and implementation of credit polices related to all commercial problem loans, proper loan grading and calculation of related loan loss reserves.

Merger and acquisition of over 25 financial institution, non-banking businesses and FDIC failed financial institutions.

Successfully solved a portfolio of problem loans that exceeded 230% of capital and assisted in taking banks public or selling the bank.

Management Team

VINCENT LUM

President

DSS Digital Group

MIKE BUELL

VP Business Development
DSS Digital Group

DAVID WICKER

*VP Research and Development*DSS Digital Group

JASON GRADY

President
Premier Packaging Corp.

JEFF KNISLEY

Sales Director
Premier Packaging Corp.

TODD MACKO

Chief Financial Officer
Premier Packaging Corp.

MICHAEL CAULLEY

President
DSS Plastics Group

JAESON CAULLEY

VP, Sales Manager DSS Plastics Group









DSS Digital Group

Product Authentication & Brand Protection Solutions



Non-Disruptive Systems Integration Technology



Works with Existing Printers and Packagers



Works with Serialization Programs/Efforts Already in Place



Works with Existing Web and Applications Developer(s)



Integrates with Your Current Systems and Processes



The DSS AuthentiGuard™ System

The AuthentiGuard[™] system is comprised of three key components that work together to secure your brand

The Application

The Security Mark









The Dashboard

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010031381	NA	Jamie Katthews	43.25	1/17/2013 13:39:00 AM	No Hotch	
010031301	YVINO	Jamis Watthews	40.35	1/17/2013 9:52:01 AM	Expired Code	
010031381	Virted	Jamis Hatthews	43.35	1/17/2013 0:49:50 AM	Valid Read	
010131311	Rad-Air	Jamis Hatthews	43.25	1/17/2513-0:49:37 AM	Expired Code, Invalid Location	
618133000	Bolis	Jamie Hatthews	43.25	1/17/2813-8:49:11 AM	Invalid Location	
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The DSS Security Mark

Protected with PRISM[™] Technology



Prism Technology on Packaging

DSS Security Mark Features

- Embedded code is protected with PRISM™ technology
- Technology resists counterfeiting on copiers and scanners
- AuthentiGuard[™] Mark is applied to surface during the printing process
- Can be produced using a variety of printing processes including: Offset, Flexo and Digital, as well as Laser
- Mark is embedded into the artwork during pre-press printing stage
- Once the AuthentiGuard[™] Mark is scanned, encrypted information becomes available to the user through smartphone application
- The Mark holds various amount of information i.e.: origin, destination, expiration, serial number + more
- Customizable in shape, size and location



The DSS Application

Multiple Applications Based on Your Needs

Custom Applications Created & Built for Every Level of Your Supply Chain



Investigator Applications



Customs Applications



Consumer Applications





The Investigator App

Investigator App Key Features

- 1) Two-factor authentication
- 2) App distribution and control
- 3) Secure tie-in to serialization and codes
- 4) History of valid/invalid scans
- 5) Photo evidence capabilities
- 6) GPS locator
- 7) Result distribution (SMS/Email/etc.)
- Simultaneously authenticate and read alphanumeric, linear and 2D codes
- 9) Fully customizable features, look and feel





The Customs App

Customs App Key Features

- 1) Two-factor authentication
- 2) App distribution and control
- 3) Secure tie-in to serialization and codes
- 4) History of valid/invalid scans
- 5) Photo evidence capabilities
- 6) GPS locator
- 7) Result distribution (SMS/Email/etc.)
- 8) Simultaneously authenticate and read alphanumeric, linear and 2D codes
- 9) Fully customizable features, look and feel
- 10) Deployed to customs officials in 95 countries





The Consumer App

Starts at Secure Marking Technology

- Authentication through covert marking technology
- Launch of a unique and engaging brand experience

Multiple Platforms

- When camera focuses on designated area, the engagement experience begins
- Apps, social networks, & even proprietary apps all supported















Engage The Consumer

- New content, promotions, upsell, loyalty programs, gamification, & other content is delivered
- Innovative Augmented Reality engagement adds virtual & valuable real estate to packaging, drives sales, increase brand engagement with interactive content

The Data Long Tail

- Engagement experience captures a wealth of data from location. authenticated product, customers, buying habits, +
- Enable interactive communication with the consumer

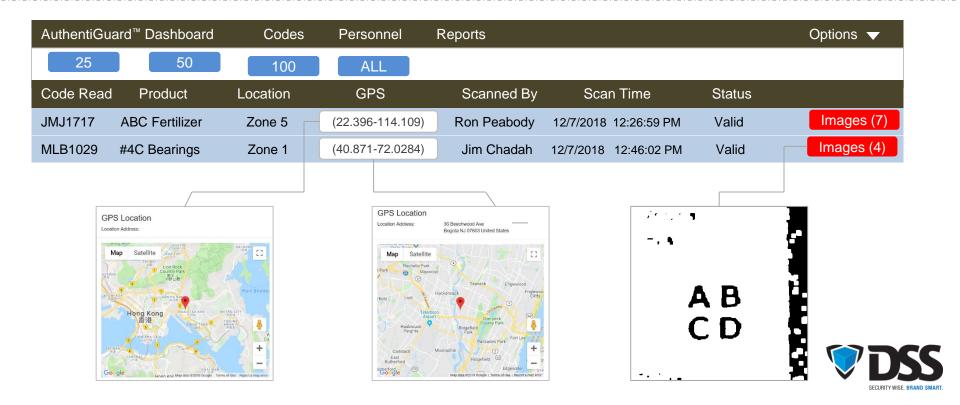


The DSS Dashboard

Secure Management, Systems Integration & Reporting

The DSS Dashboard is a secure, centralized URL with two main functions:

- 1) System Set-Up and Management: Codes, Personnel, Reports, Options
- 2) Reporting: Code Reads, Product, Location, GPS, Scanned By, Scanned Time, Status + more





Blockchain-As-A-Service

Blockchain in the Supply Chain

- A decentralized and transparent system whose sole purpose is interoperability between untrusted systems
- Establishes trust via secure and traceable transactions with an immutable IT infrastructure
- The entire supply chain can participate in a peer-to-peer network ecosystem allowing for more efficient, less expensive and highly secure interoperability
- A non-disruptive and integrative approach to remedy the existing fragmented supply chain infrastructure

Powering the Blockchain

- A product's secure digital signature is crucial to the security of blockchain deployment
- Without it, any mark can be easily replicated, subverting efforts to control product or distribution
- DSS has patented marking technology which can't be copied, scanned, or photographed
- DSS can provide greater control over the end-to-end supply chain which can't be compromised



Blockchain-As-A-Service

AuthentiChain™ Technology Overview

- Creates secure and efficient way for multiple participants in supply chain to "virtually" link systems together
- Facilitates supply chain ecosystem to collaborate under one roof, no disruption of existing information system infrastructure
- Application programming interface allows multiple parties to consolidate data on blockchain rather than directly into proprietary systems
- Applications built to "write to" or "pull data" from network including apps not developed or offered by DSS
- Brand maintains control over their data & who can contribute or utilize

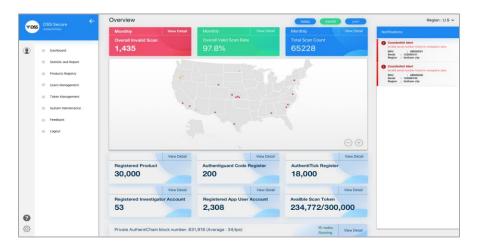


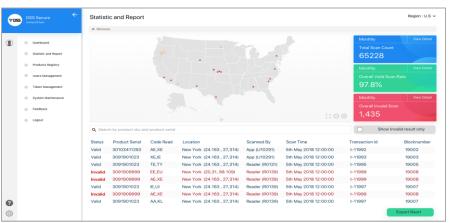


Blockchain-As-A-Service

AuthentiChain™ Technology Features

- Secure portal provides control over solution, users, access rights, & data
- Reports & statistics immediately available for brand owners
- DSS applications for:
 - product authentication
 - product activation
 - retail channel engagement
 - online sale authentication
- Secure digital signatures for tagging product
- Hologram, print, and RFID marking capabilities



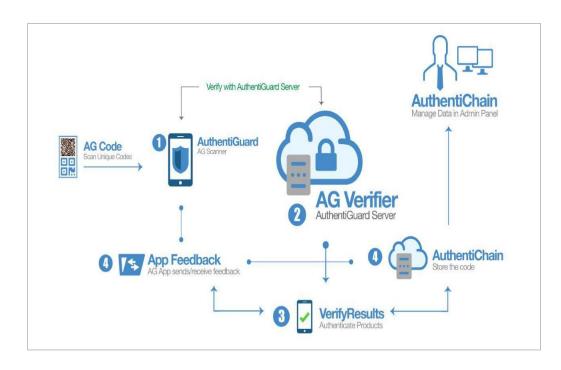




Blockchain-As-A-Service

AuthentiChain™ Capabilities

- End to end solution including:
 - authentication portal
 - APIs
 - multiple ledgers
 - global infrastructure deployment
- Single unified record of product down to the unit level
- Built using the Stellar protocol
- Smart contract capability
- Capable of 30 transactions per second







Combined Strengths of Digital and Packaging Group

Integrated & Secure Packaging Solutions

- As the Security Printing Division for DSS, Premier's Product & Document Authentication offerings start with the DSS portfolio of patented Authentication technologies.
- DSS's authentication technologies add a level of proof to your goods and materials so they can be verified as genuine.



PRISM™ TECHNOLOGY

- ✓ Customizable in shape, size and location
- ✓ Secure mark is added to your product and/or packaging during normal printing process
- ✓ Encrypted marks hold variety of info: origin, destination, expiration, serial number + more
- ✓ Cannot be duplicated by copier, scanner or hi-res photography
- ✓ Hidden images or words can only be revealed using the DSS smartphone application



DSS Phantom™ & VeriGlow™



PHANTOM™ TECHNOLOGY

- ✓ Optically Variable Technology protects product packaging and important documents.
- ✓ Adds hidden image to design only visible when viewed at an angle, quick and easy for anyone to verify the authenticity
- √ Viewed straight on, embedded image is invisible; viewed at an angle it is revealed
- ✓ Can't be reproduced, with even the best scanner or copier



VERIGLOW™ TECHNOLOGY

- ✓ Invisible ink embedded in the document, label or package during the normal printing process or placed on pre-printed documents or packaging
- ✓ A special reading system reveals hidden code to ensure authenticity
- ✓ Not visible to the naked eye, uses simple two-step authentication process
- ✓ Ideal for securing currency, passports and other vital records.



DSS Pantograph 4000™

One of Today's Most Powerful Security Measures in Production Printing



Pantograph[™] Technology Overview

- Pantograph 4000[™] is your first line of defense vs. fraud
- Next-generation technology proven most effective on the widest range of copiers and desktop scanners.

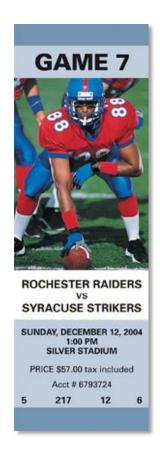
Technology Features

- Embeds hidden warning words (e.g. "VOID") or images into the background tint of your document or packaging
- Reveals hidden words or images once product is copied or scanned
- Distorts and obscures product's original artwork, such as logos, texts and barcodes
- Ability to customize hidden messages
- Continually updated to work against the newest models of copiers and scanners



DSS Block-out[™]

High-End Color Copier Protection





High-End Color Copy

Block-out™ Technology Overview

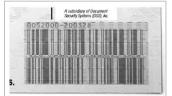
- DSS Block-out[™] anti-copy technology is meant to provide protection against certain high-end model color copiers
- Block-out[™] can be placed on most any type of substrate, making it ideal for a multitude of applications

Technology Features

- Disables the visible copy function in most modern color copiers, resulting in a completely black or distorted copy
- Technology embedded into original artwork or photographs
- When paired with Pantograph 4000, Block-out[™] creates a comprehensive dual protection for documents and vital records

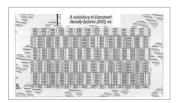


DSS Barcode Barricade™

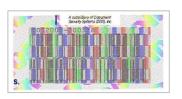




Original







Scanned



Barcode Barricade[™] Technology Overview

- Barcodes are one of the easiest technologies to duplicate using a copier or scanner, making them highly vulnerable to fraud
- Barcode Barricade[™] creates an easily-readable original barcode that, when copied, will be difficult for barcode scanners to read

Technology Features

- Original barcode is easily read by traditional barcode scanners or smartphone barcode reader applications
- Duplication of barcode results in a distorted barcode area
- Reduced barcode function results in closer scrutiny at redemption to reveal fakes





Premier Packaging Corporation

- Premier is the Packaging, Security and Commercial Printing division of Document Security Systems and is an ISO 9001:2008 registered manufacturer of custom paper board cartons.
- For over 25 years, Premier has provided its valuable customers with a range of products and services including package design, prototyping, manufacturing, inventory management programs and so much more.































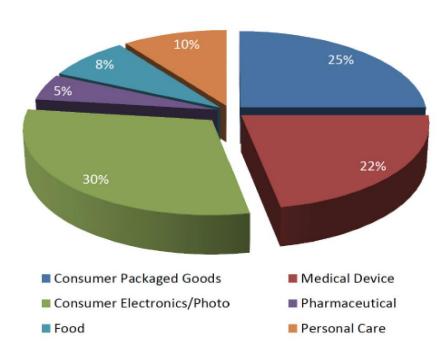






Premier Packaging Corporation

Current Markets Segments



Competitive Advantages

- Exceeding Customer Expectations
- Original and Creative Designs
- Strict Quality Standards
- Decorative Capability
- Cost-Efficient Production
- Green Sustainability Initiative
- In-House Structural Design
- Inventory Programs



Premier Packaging Corporation

Packaging and Folding Carton Solutions Provided For:

Mailers



Premier is the market leader in custom paperboard mailing envelopes and have been providing our customers with innovative mailing solutions for over 25 years.

Food



Premier Packaging offers a variety of packaging solutions for the food industry that showcase the food, as well as protect it during transport.

Medical Device



Creating folding cartons for health care and medical device manufacturers makes up a significant part of Premier's overall product mix.

Consumer Products



Premier Packaging provides a wide range of folding cartons that can be designed to fit nearly any shipping, display or merchandising need.





Plastic Card Products

- DSS Plastic Group (DSSPG), a division of Document Security Systems, Inc., has been manufacturing innovative plastic cards and products for businesses, worldwide, for over 40 years
- DSSPG's primary focus is manufacturing composite, laminated, and surface printed cards, which can include mag stripes, bar codes, holograms, signature panels, invisible ink, micro-fine printing, split-fountain, guilloche patterns, watermarks, RFID and the robust DSS AuthentiGuard™ suite of patented, printed security features can be laminated into a card.



SwiftColor Inkjet Plastic Cards



RFID Products



Plastic Card Manufacturing



Plastic Graphics



Security Printing



RFID Products

- Radio-frequency identification (RFID) is the wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects.
- It is a method of identifying objects and of transferring information about the objects' status via radio frequency waves to a host system.
- RFID technology has numerous uses. It relieves the need and cost of constant monitoring and extra security personnel.

Applications include:

Events: Ticketing, Event Worker Credentials, Asset Tracking

Retail: Employee Badges, Integrated RFID Packaging, Fresh Food Racks

Medical: Patient ID, Pill Bottle Cap Tag, Disposable Surgical Item Authentication

Business/Industrial: Coffee Bean Sack Tag, Soybean Processing Plant Card, Parking Hang Tag for Cars & Motorcycles

Select Clients





Plastic Graphics

DSSPG customers often think outside the box and request many non-card items that are custom shaped and die cut. DSSPG's product line includes just about anything you can think of that is printed on plastic.













- ✓ Computer overlays
- ✓ Door hangers for hotels
- ✓ Bobbers & shelf strips for supermarket shelves
- ✓ Placards & signs
- ✓ Rulers & templates
- √ Key tags & fobs
- ✓ Mouse pads
- ✓ Parking permits
- ✓ Static cling labels / signs
- √ Wallet calendars
- √ Bookmarks



Security Printing Features

- DSSPG is continuously developing new technologies to stop illicit card duplication, and incorporating these solutions into a wide range of custom applications.
- Our security features have been developed specifically to stop todays most advanced counterfeiting methods. From ID cards to security passes, these cards are symbols of identity, safety and membership
- Any number of our security levels and features can be applied to a card in any combination, giving you the world-class
 protection you need with the flexibility you demand

OVERT



- "First line" validation features can be seen without the use of special devices
- Most frequent device is High Refractive Index (RFI) hologram
- Enhanced depth, transparency, and fine line detail
- Example: Used on most driver's licenses

COVERT



- Variable data is printed at the time of issuance of card
- Verifiable with standard light, black light, biometric or digital scanning, & database checking
- Example: Any card with microprinting, specialized bar codes and covert background printing

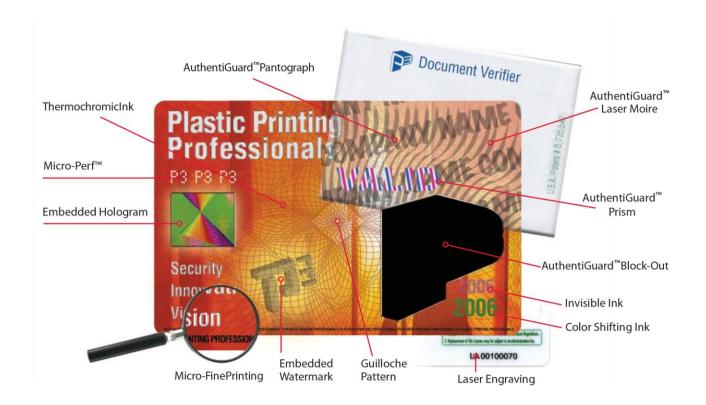
FORENSIC



- Kept secret to remain useful
- Analyzed by dismembering the card for origin
- Verified by specialized optical scanning devices or devices
- Images or physical objects are hidden with the card structure

Enhanced Security Features

DSSPG never stops researching and developing new plastic formula technologies for durable, longlasting cards or security features that enable peace of mind in highly secure environments

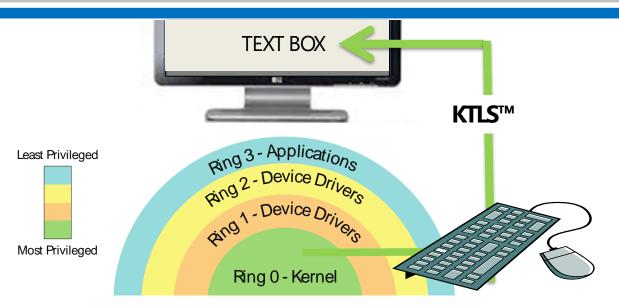






DSS Cyber Security

Keystroke Transport Layer Security Protocol



EndpointLock™ takes control of the keyboard driver at the lowest possible layer in the kernel, Ring "0".

EndpointLock™ KTLS™ delivers Keystroke Transport Layer Security:

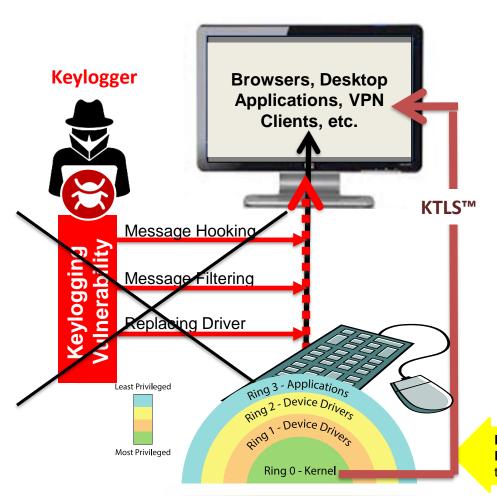
While SSL and TLS begin strong cryptography at Layer 4 or, the Transport Layer within OSI, KTLS™ begins strong cryptography from the kernel level at ring 0 and encrypts all keystrokes.





EndpointLock™: Patented Keystroke Encryption

with KTLS™ - Keystroke Transport Layer Security



- KTLS takes control of the keyboard driver at the lowest possible layer in the kernel, Ring "0".
- Protects keystroke data by creating an alternate AES 256 AES bit encrypted pathway, routing the data around the area of vulnerability.
- Create Encrypted Keystroke packet per keystroke
- Create Decrypt packet per keystroke for Encrypted Keystroke
- Send Decrypt packet in to text box requesting stroke and then deliver encrypted keystroke and decrypt keystroke directly in to application

EndpointLock's KTLS (Keystroke Transport Layer Security)
Encryption Process: Encrypts and protects ALL data being typed on the device.

First Line of Defense for ALL Online Mobile Activity

The Secure Keyboard is the ONLY constant

Consumer

Entering Payment Info Logging into Financial **Filling out Forms** Typing in Social Media Making travel plans Sending Private Email **Sending Private Texts**

Your customers will see the EndpointLock Brand protecting them throughout their day



In 2018 US adults spent an average of 3 hours, 35 minutes on their mobile device

Business BYOD



Office Locations & Contact Information



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