







A Roadmap Towards Cross Border Electronic Certificate Of Origin By CrimsonLogic

Kenneth Lim
VP (Technology Development) CrimsonLogic
Chairman AFACT 2004
Chairman Singapore EDI Committee
kennethlim@crimsonlogic.com
21st July 2004

All rights reserved. 'CrimsonLogic' and the Shell Device are trade marks of CrimsonLogicPte Ltd. All information contained in this presentation is disclosed to you on the basis of a prospective business relationship and is proprietary to CrimsonLogic Pte Ltd and may not be used, disclosed or reproduced without the prior written consent of CrimsonLogic.



- Certificate of Origin (COO)
- Call for Collaboration
- Conclusion
- CrimsonLogic



Certificate of Origin – Where does it fit into the Big Picture?



Single Electronic Window

Collaborative Trade

Stakeholders on the entire Trade & Logistics Supply Chain





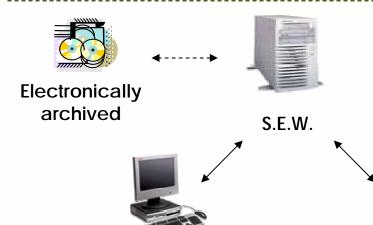








Manufacturer / Exporter



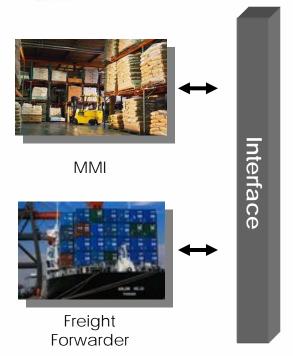
Importer





Single Electronic Window

Document Repository











Other Networks

Utilities Repository



Chambers Portal



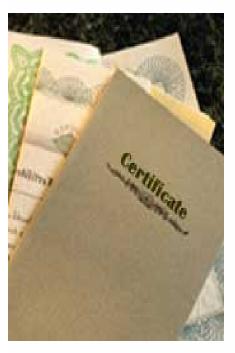


Regulatory Bodies



Certificate of Origin

What is Certificate Of Origin?

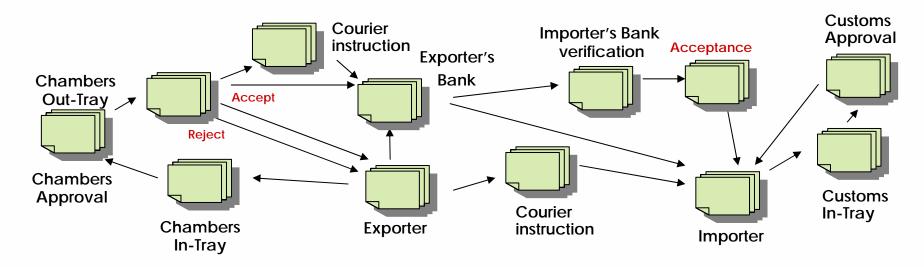


- Required by trading partners, and/or foreign governments and/or banks
- Products are wholly obtained, produced or manufactured in a certain country
- Used by Customs officer to determine
 - Whether or not a preferential duty rate applies on the products being imported
 - Whether a shipment may be legally imported during a specific quota period



Certificate of Origin

Paper-Based Certificate of Origin Application

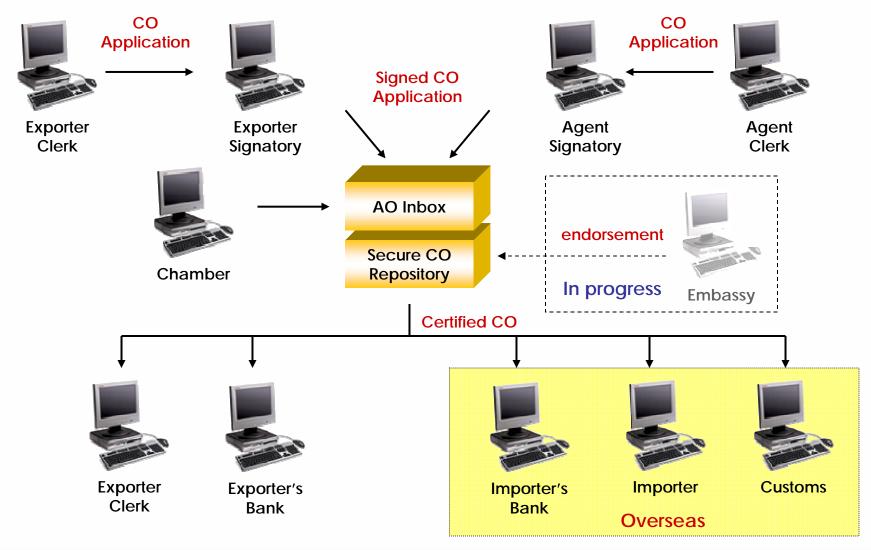


Issues of Efficiency, Control and Cost

- Multiple manual trips to the chambers and banks
- Paper flow with replicated data entry
- Manual sorting and matching of paper documents
- Slower trading cycle



Electronic Certificate of Origin



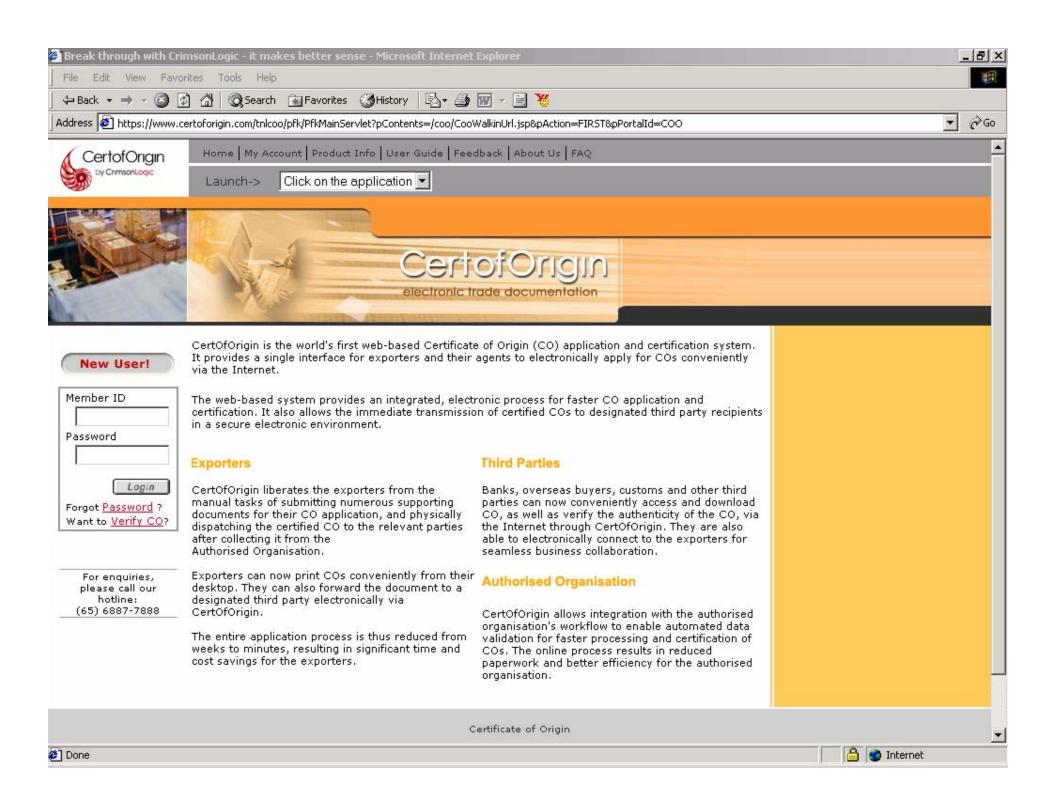
Functions





CertOfOrigin allows:

- Electronic application of CO by exporters and agents
- Online approval and certification by Authorised Organisations
- Printing of CO by exporters or designated trading partners
- Anytime, anywhere access of CO by bank, overseas buyers and designated trading partners
- Online verification of CO by recipients of CO





Call for Collaboration – How do we work together?

CrimsonLogic makes-better-sense

ECO Action Plan

- Jointly tabled by Singapore and Korea (Feb 2004) for ECSG's consideration
- Phase I (by end 2004)
 - Adoption of Standard Features for an ECO Scheme
- Phase II (by 2005)
 - Implementation of ECO system within domestic economy
- Phase III (by 2005/2006)
 - Implementation of system for transmission of crossborder ECOs



APEC Pathfinder ECO Phase I

- Adoption of Standard Features for an ECO Scheme
 - Security (transmission, backup, authenticity)
 - Cost Savings
 - Reliable Delivery



Motivation for Standardization

- Open, public, accountable standards process
- Non-proprietary and royalty-free
- UN/CEFACT, OASIS, and W3C specifications
- Intended for normative status under international law
- Human- and machine-readable
- Compatible with existing EDI systems
- Ease of interoperability
- Lower overall cost of entry quicker adoption by SMEs (users)



Standards Based Framework

PKI (X509 v3, PKCS), SSL, XMLSign, Watermarking

UBL, BCF, ebXML Core Component, RosettaNet, EDIFACT,XML

ebXML, RNIF, web services, SOAP

Internet

Messaging Framework

Transport Framework

Network Framework

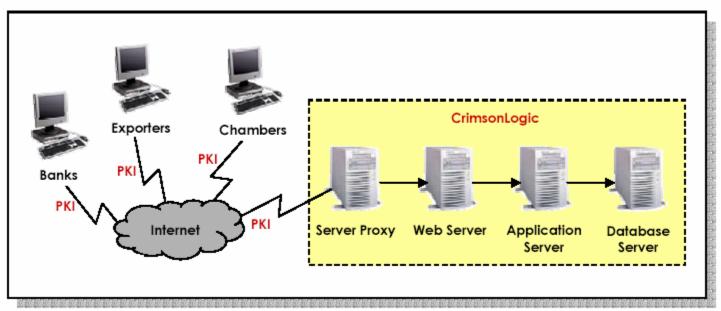


Technology Used - Message

- Business Modeling
 - AFACT has formed a working group to look into the business modeling of ECO using the Business Collaboration Framework. Economies participated in the first meeting include: Singapore, Malaysia, Chinese Taipei, Australia, Korea
- Message Format
 - Submitted to UBL for guidance and adoption of the message specification
- Message Transport
 - To explore ebXML



Technology Used - PKI



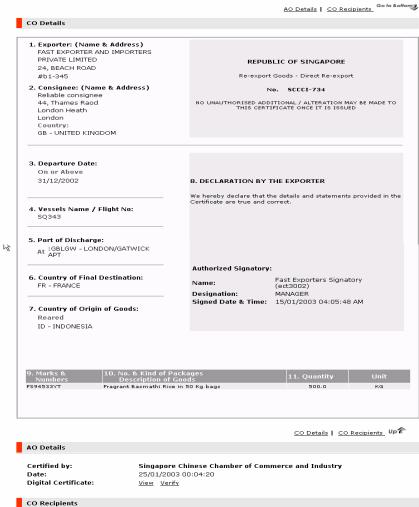
PKI

- Offers data integrity, authenticity and non-repudiation
- Smartcard used to store private key and access the system when digitally signing the application
- Working with Asia PKI Forum on interoperability of CA across economies



Work Flow

View Certificate of Origin



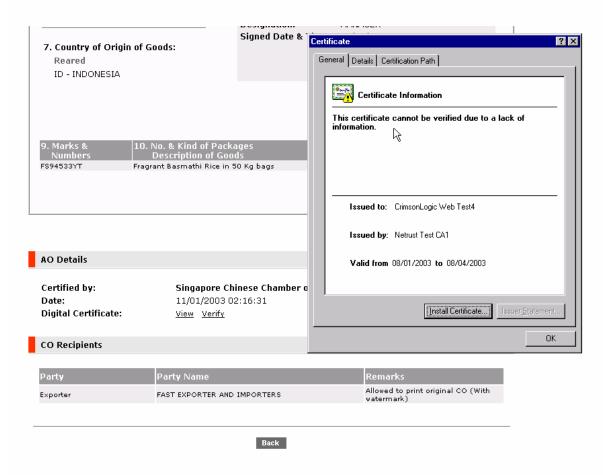
FAST EXPORTER AND IMPORTERS

- View Certificate of Origin
 - Controlled access to various stakeholders
 - Archived copies available

Allowed to print original CO (With watermark)







- Authenticity
 - Digital Certificates included
- Security
 - PKI used
 - Smart Card readers



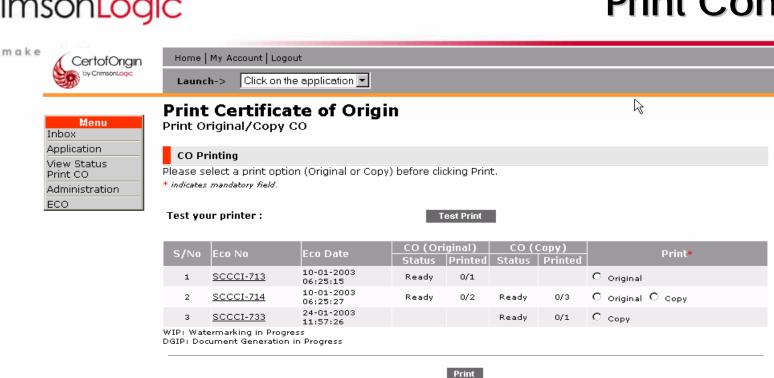
Proactive



- Messages Management
 - Users' Alerts
 - A typical screen for management of certificates



Print Control

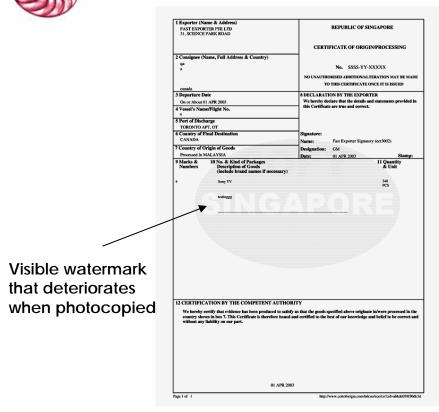


Remote Printing

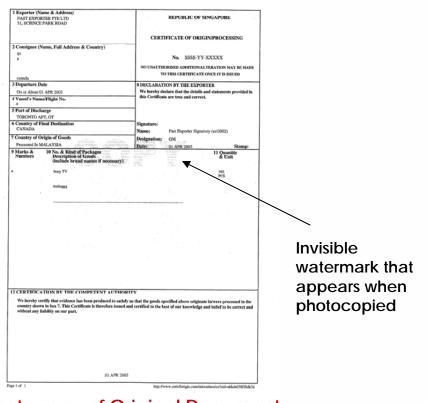
- Print controls functions included to limit copies
- Printing can be used as an intermediary prior to pure electronic acceptance
- Watermarking included
- Online repository

CrimsonLogic

Technology



Original Document



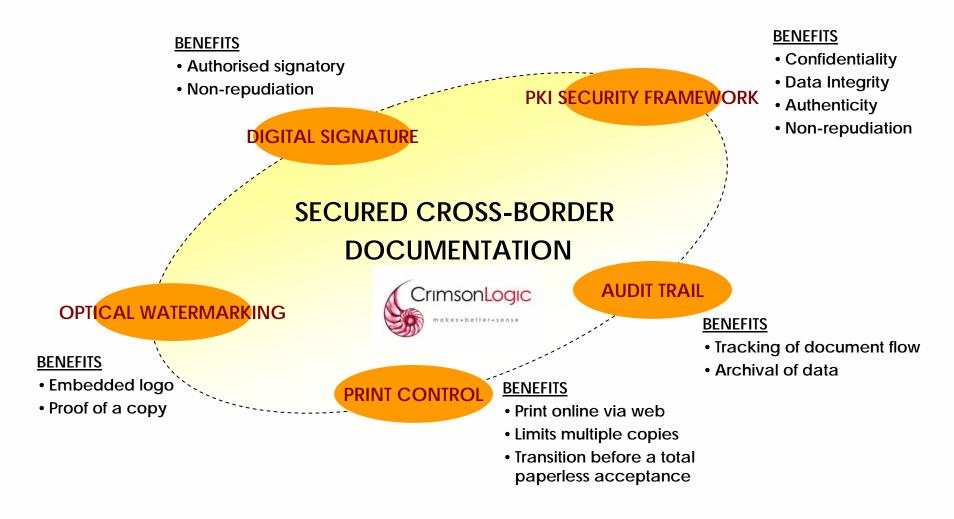
Photocopy of Original Document

Watermarking Technology

- Protects printed document from unauthorized copying
- Allows for a transition state before a total paperless acceptance



Technology





Certificate of Origin – Where do we go from here?



Challenges Faced

- Require some clear direction on the standards
- Require to interoperate with existing legacy systems
- Require awareness and adoption in each economy to pick up
- Require requirements for interoperability between economy

Collaboration is the key to success in cross border transaction



Certificate of Origin – Who Implements in Singapore?



Our Background



Incorporated in March 1988

Four shareholders:









Formerly known as the Singapore Trade Development Board



Achievements



TradeNet - World's First Nationwide Electronic Data Interchange System

- Harvard Business School, 1993 and 1995

Independent Record Keeper

- Inland Revenue Authority of Singapore, Ministry of Finance, 1998

Singapore Electronic Filing System - World's First Nationwide Paperless Civil Court System

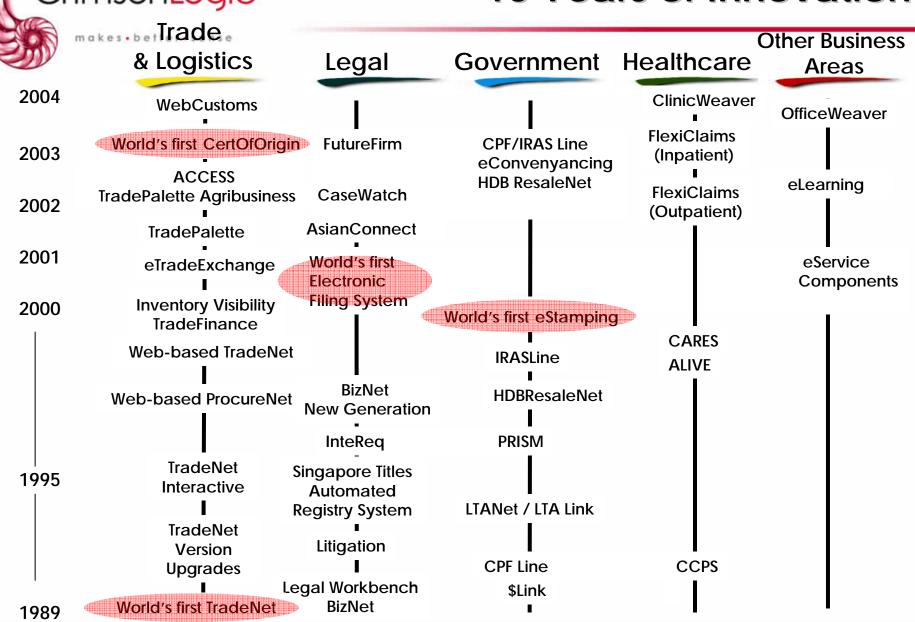
- Journal of the Queensland Law Society, 2000

Outstanding Supplier Award 2001

- Inland Revenue Authority of Singapore (for the E-Stamping System), 2001

CrimsonLogic

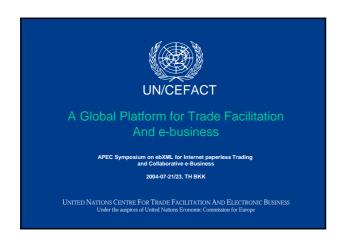
16 Years of Innovation

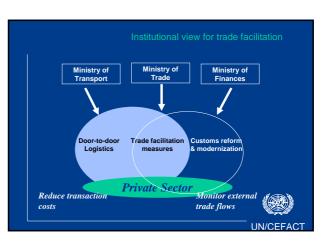


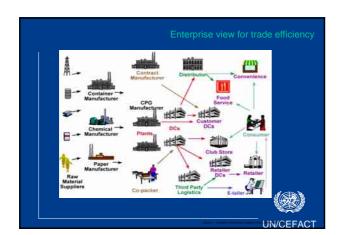
CrimsonLogic makes.better.sense

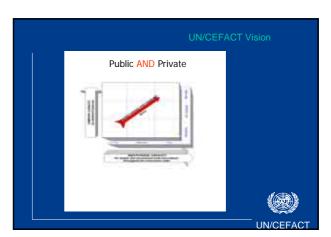
Worldwide Presence

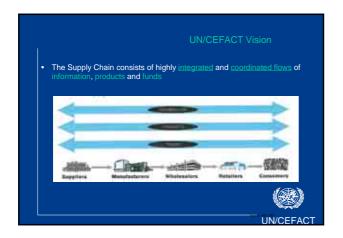


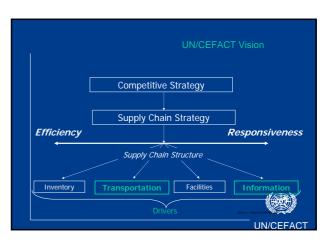


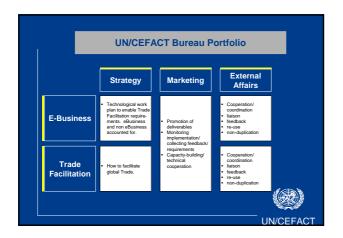
















Response to 9/11

- Major shift in focus to the threat FROM trade
 - Push Back the Boarders CSI
 - Risk Profiling Advance information
- US undertook emergency analysis of vulnerability and identified sea-borne containers as main threat





