# Knowledge Exchange Conference

From ebXML gateway to the challenge of applied research in Hong Kong

Prof. David Cheung Head Department of Computer Science

Director Center for E-Commerce Infrastructure Development (CECID)

### B2B Message Gateway (Hermes) on Internet – convert Internet into a secure leased line Private Network Order EDI gateway EDI gateway (EDI) Buyer Seller **With Hermes** Internet Order Doc Hermes (XML) Buyer Seller ebXML has been replacing the old EDI

## ebXML is an ISO standard for B2B E-Commerce

- ebXML is a stack of specifications for conducting B2B e-Commerce on Internet
  - ✓ Version 2 completed in 2002 by OASIS
  - Becomes an ISO standard in 2004
- ← The stack consists of three major components
  - ebXML Registry
  - ebXML Business Process
  - ebXML Messaging Standard (ebMS) for doc exchange
- ← Goal: Interoperability (for B2B) on Internet
- Subgoal: to replace EDI

Making e-commerce everyday commerce

# Two ITF projects were awarded based on R&D on ebMS

- Establishment of an ebXML Software Infrastructure in Hong Kong (ITS/101/01) – HK\$ 11.8M
  - Main output Hermes (ebMS message gateway)
- An eLogistics Appliance with Data Exchange and Conversion Technologies for Infrastructure Connectivity (ITP/018/07LP) – HK\$ 6.6M
  - ← Main output B2B Connector (ebMS network device)
- Hermes is the most popular ebMS gateway in the world

Making e-commerce everyday commerce Center for E-commerce Infrastructure Development

# Worldwide Adoption of Hermes (B2B message gateway

- Largest user base among all ebXML messaging products
  - Recorded download from 80+ economies (Australia, Canada, China, Chinese Taipei, Denmark, France, Germany, India, Korea, Korea, Japan, Macau, Myanmar, New Zealand, Singapore, Thailand, UK, US, Vietnam,......)
- Many production cases in local and overseas project e.g.
  - Marine Department (Dangerous Goods Declaration)
  - Transport Department (Submission of Insurance Documents)
  - ← OGCIO (GETS & EGIS)
  - MTRC (E-Procurement system)
  - OOCL (international shipping company)
  - Spheroid Technology (IT consulting in Australia)
  - Tedis (IT consulting Australia)
  - Viatel (Connect to British Telecom hub)

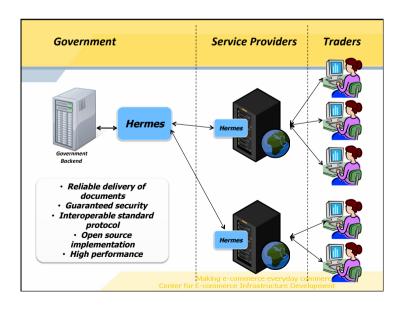
Making e-commerce everyday commerce

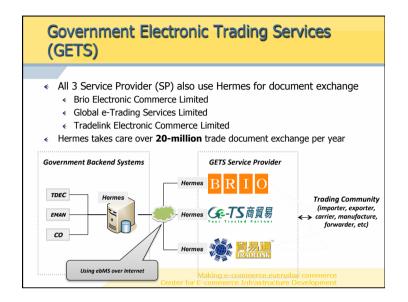
# Government Electronic Trading System (GETS) X.400 Before 2010 (obsolete implementation) Use X.400 Obsolete protocol High maintenance cost Start to investigate replacement in 2008/09 Decided to use ebXML Making e-commerce everyday commerce ev

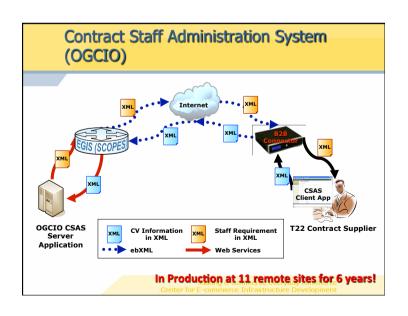
# Government Electronic Trading Service (GETS) - OGCIO

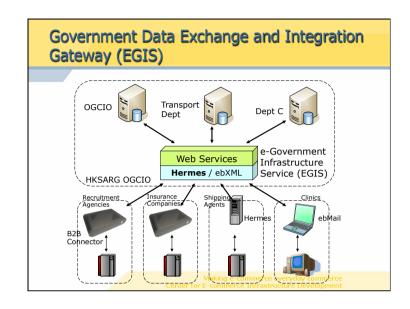
- E-Government gateway for 6 major trade-related documents for trade declaration (import & export)
  - TDEC, EMAN, ......
  - Mandatory electronic submission by law
- Three service providers (SPs) are appointed to provide front-end services to traders, services include:
  - Accept document submission from traders (via electronic or paper means)
  - Collection of levy
  - Exchange trade documents and system messages with Government via electronic channels
- Processes 20 millions of document submission per year

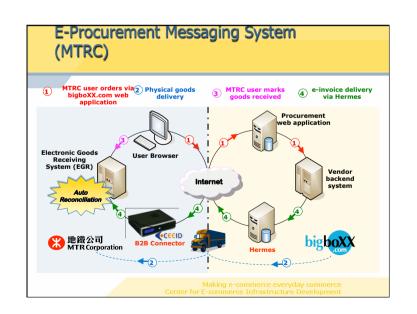
Making e-commerce everyday commer Center for E-commerce Infrastructure Developme

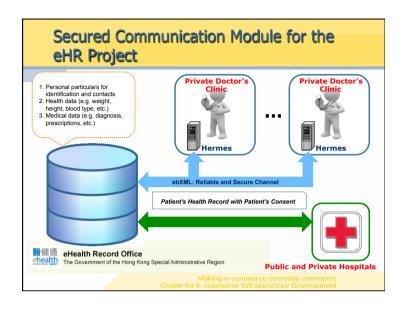














## Challenge of Applied Research in Hong Kong

- Why should we do applied research in Hong Kong?
- Make relevancy to the society
  - Is it good enough to do curiosity-driven research only?
  - In disciplines like Engineering, we need to connect to the societal grant challenges – health care, energy, environment, security, etc....
  - Applied research connects us to the society and industry

Making e-commerce everyday commerce
Center for E-commerce Infrastructure Developmen

## Challenge of Applied Research in Hong Kong

- · The major challenge is sustainability
  - Need to maintain a team
  - Need to build up continuous support from the industry to solicit sponsorships
  - Need to have a stream of projects to keep a team
  - Need to have new idea to solicit new fundings before earlier projects have been commercialized

Making e-commerce everyday commerce Center for E-commerce Infrastructure Development

# Thank You

Making e-commerce everyday commerce
Cepter for E-commerce Infrastructure Developmen