

Business Excellence

Advanced ICT Applications for HKSAR Government Department

Electrical & Mechanical
Services Department

*with a
Difference*



ICT Services in EMSD



- Provide various ICT services to other government departments
- Unique advantage - understand the special needs of government departments



ICT Services in EMSD

- Some of the ICT Services Offered by EMSD
 - *Mobile CCTV (MCCTV)*
 - *Electronic Document Management System (eDMS)*
 - *Enterprise Resources Planning (ERP)*

Business Excellence

Mobile Wireless CCTV System (MCCTV)

Mr. C.W. Chung

*with a
Difference*

Introduction to Mobile Wireless CCTV (Initiated, Designed & Built by EMSD)

■ Why Mobile Surveillance?

- Monitor traffic condition at any location of road network not covered by existing CCTV systems
- Traffic congestion / incident / Major event
- Deliver real-time video image
- Provide instant on-site information



MCCTV System Overview

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EMSD



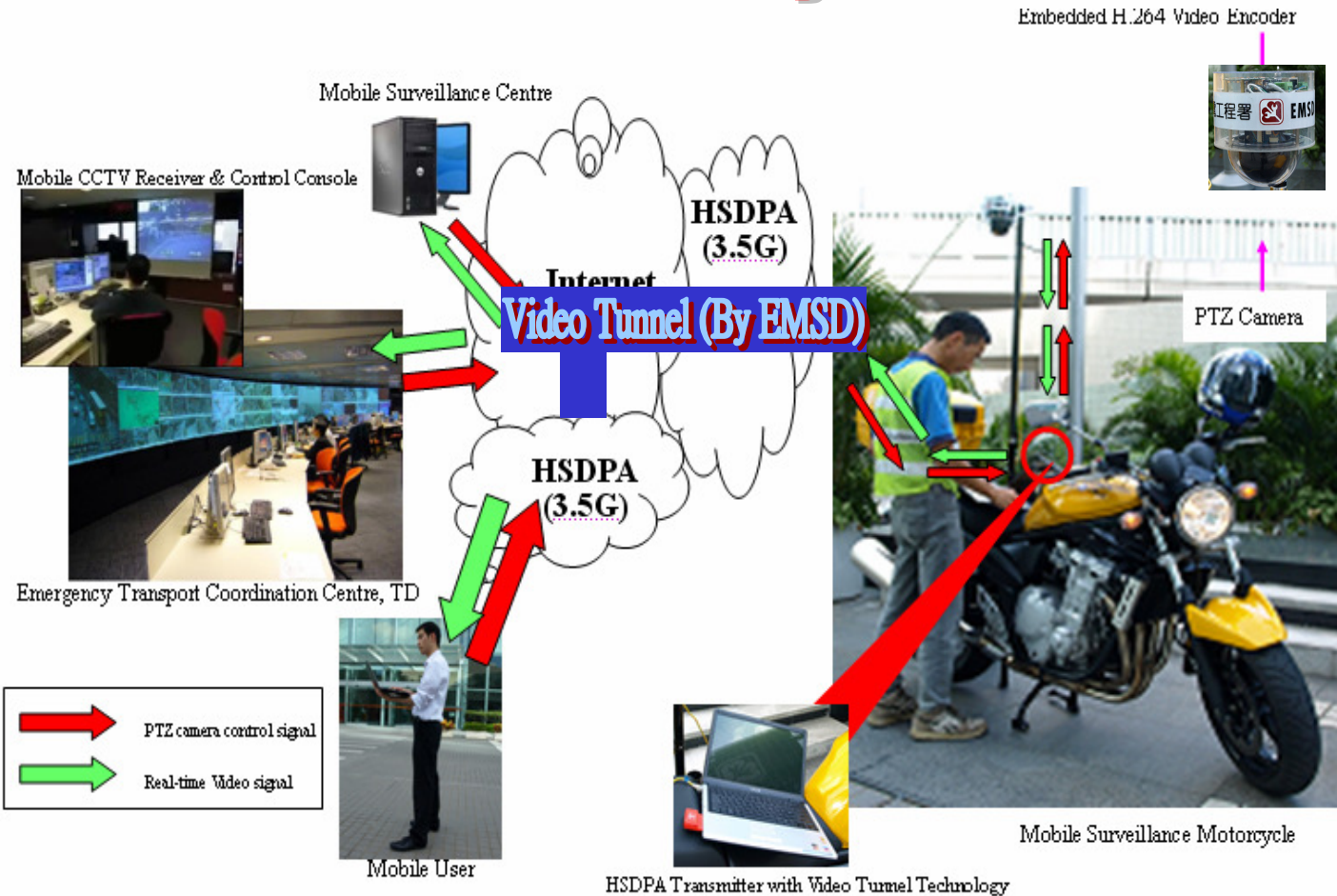
■ There are 4 major components for system:

1. Mobile Surveillance Centre (MSC)
2. Van and Motorcycle
3. Out Door Mobile Camera Unit (OMCU)
4. Image Receiving Units

Introduction to MCCTV System Configuration



(Re-definition of the industry/business models)



Introduction (Cont'd)

(Improving trends in business performance with sustainable and replicable impact)

- Operation of Mobile Surveillance System
 - *Mobile Surveillance System will be set up and deliver image at any location of road network in the territory around **1 hour (Anywhere)***
 - *running at a **24 x 365 basis (Anytime)***



Our Vision

Instant + True Information

at

*Anytime + Anywhere +
Affordable* Cost

MCCTV Characteristics

(Innovation Use of ICT)

- Mobile Connection / Broadband Wireless
 - 3.5G (HSDPA) uplink speed: 384 kbps
 - BWA : Carry 8 DVD quality live video
- Flexible Monitoring (Virtual Video Matrix)
 - IP platform for single and multi-site monitoring
- Embedded professional camera with video encoder
 - Digitized professional P/T/Z camera with embedded H.264 encoder

MCCTV Features

(Quality)

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- Ensure mobile network coverage
 - Cover 99% populated area
 - Regular test for major roads and PTIs

- Adopt state-of-art digital compression technology
 - Provide 4 times better video resolution when compared with video call offered by 3G/3.5G cellular phone



MCCTV Special Elements

- Video Tunnel
- Professional Digitized Camera
- High Flexibility to Adopt with other Professional Equipment

Video Tunnel

(Application of Local Element)

- Initiated, designed & built by EMSD
- Provide smooth video data transmission and **camera control** over 3.5G mobile and Internet networks
- **Virtual Wireless Fix IP** Address for Camera
- Automation

Digitized Professional Camera

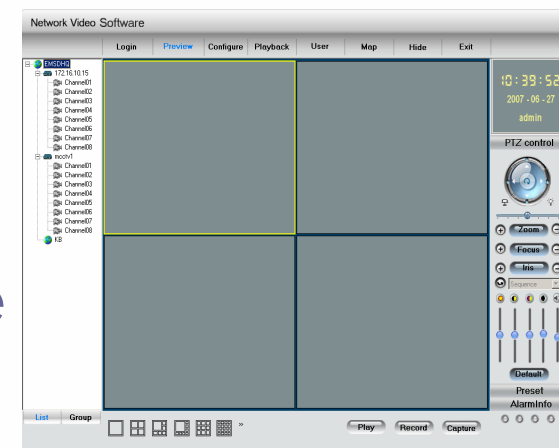
(Application of Local Element)

- Professional cameras are digitized by EMSD to provide mobile surveillance service
- Bullet-proof, thermal imaging camera can be digitized and integrated to the system by EMSD to meet end-user needs
- Professional features include remote PTZ and video analysis



User Interface of the MCCTV (User Friendliness)

- User only needs **basic PC** knowledge
- Windows based GUI that is similar to traditional CCTV control for **easy operation**
- **Multiple controls** at **different sites** are available to provide more **flexibility** to end users



Enhance coordination, mutual backup (Central Control & Monitoring Center)

(Benefits to Community)

Existing Core Systems at TCC

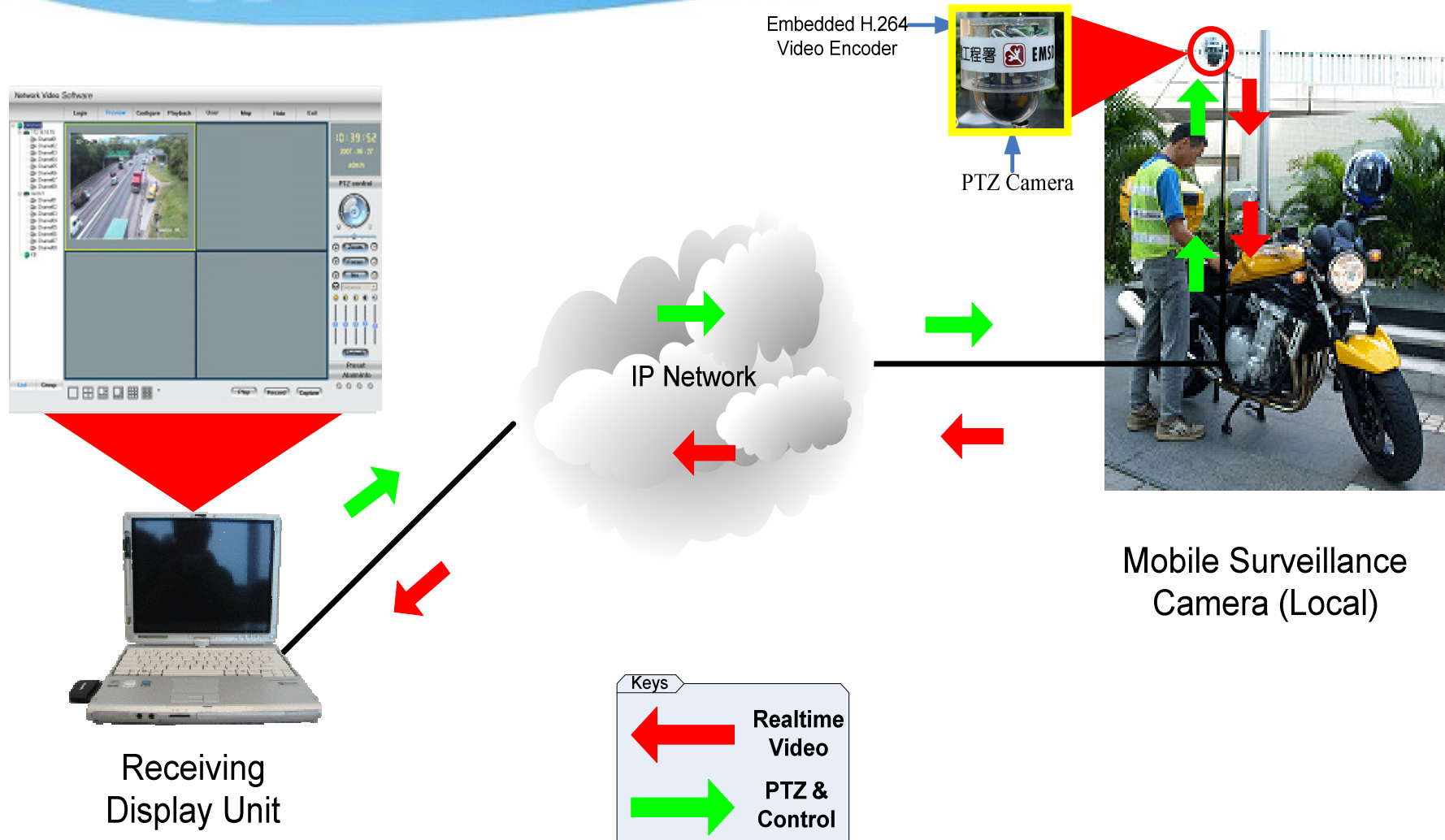


Photo taken at Immigration Tower 40/F TCC of TD

- Automatic Traffic Control System
- Centralized CCTV System
- **MCCTV System**
- Variable Message Board System (VMS)
- Emergency Road Map System



Demonstration Setting



Latest Development

Wireless CCTV

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(Re-definition of the Industry Models)



MCCTV Characteristics and Features

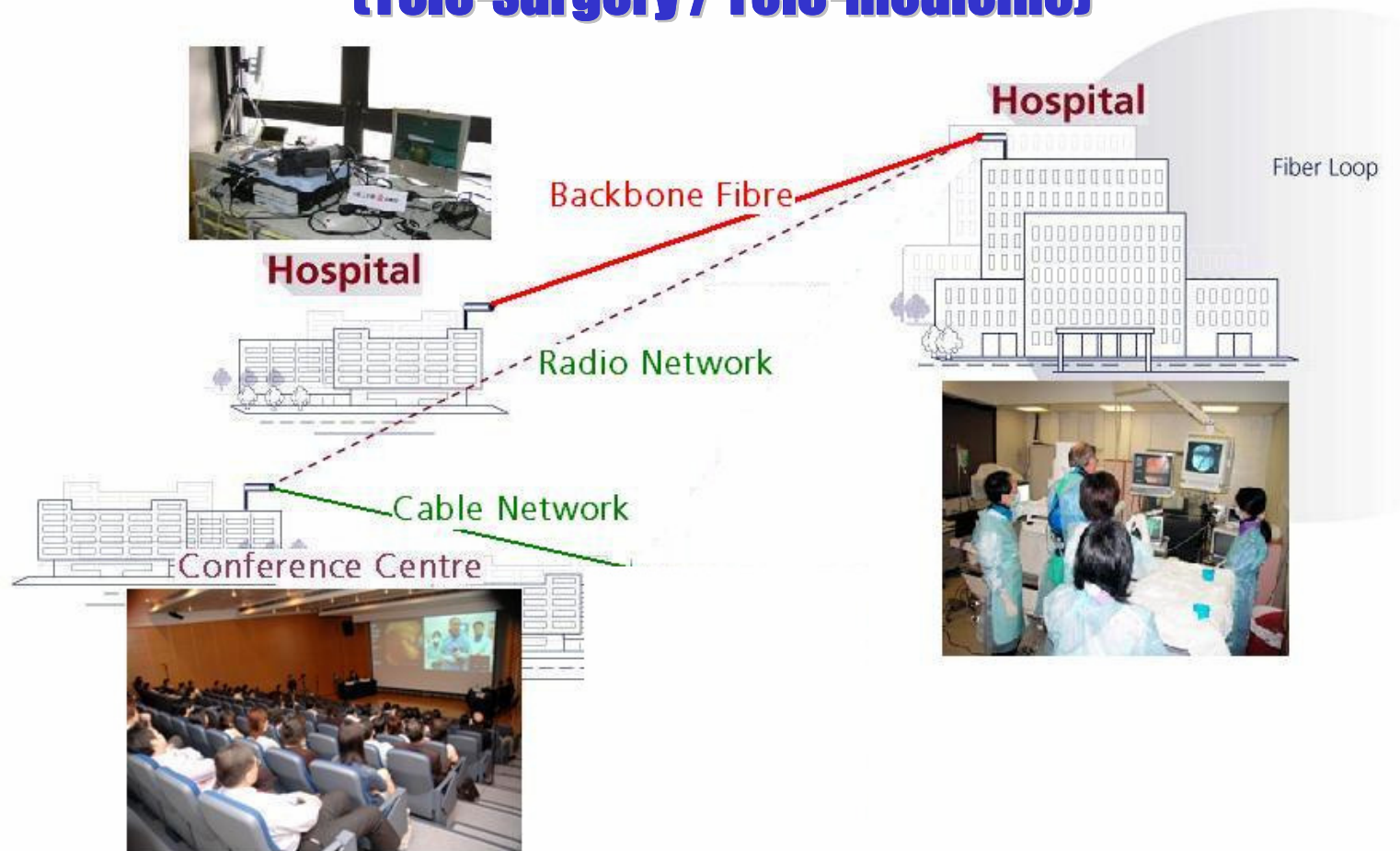
(Benefits to Community)

- **Cost Saving**
- **Remote areas not covered by landline** (Powered by Batteries and Photovoltaic Cell & Video transmitted through mobile network)
- **Quick service within hours**
- Environmental Protection
 - Eliminate civil works for laying cable (**less inconvenience to public**)
 - **Renewable energy**
- Quality information received by TD
 - Quick response and **instant information to public**

Cable & Wireless Communication Platform

Job Reference

(Tele-surgery / Tele-medicine)



Other Wireless Communication Platform (Broadband Wireless)

- Special design broadband wireless equipment with EMSD profile
 - EMSD's agreement is required prior use
- Use of 4.9GHz Frequency and Public Safety Band technology
 - less interference
- High Throughput Rate (more than 30 Mbps deliverable)
 - carry 8 DVD quality real-time video
- Transmission Range Up to a Few KM





With A Difference

“Information is power”

Professor Muhammad Yunus

Business Excellence

Electronic Document Management System (eDMS)

Mr. Timothy Wong

*with a
Difference*



Why eDMS?

■ 2004 Digital 21 Strategy

“...lead by example [in] the use of e-business... in conducting internal business... [in order] to improve efficiency through technology exploitation and service transformation...”

■ EMSD, the pioneer of implementing “Paperless Office” promulgated by HKSARG



The Objectives of eDMS

- **Improving** the efficiency in accessing the office records /documentations
- **Reducing** the physical storage space required for numerous and bulky government records
- **Improving** the efficiency of document inflow/outflow process, especially those related to public interest
- **Minimizing** the chances of filing duplicated documents
- **Realizing** good and standardized customer relationship management practices with citizens



Business Excellence

Sustainable Service Improvement

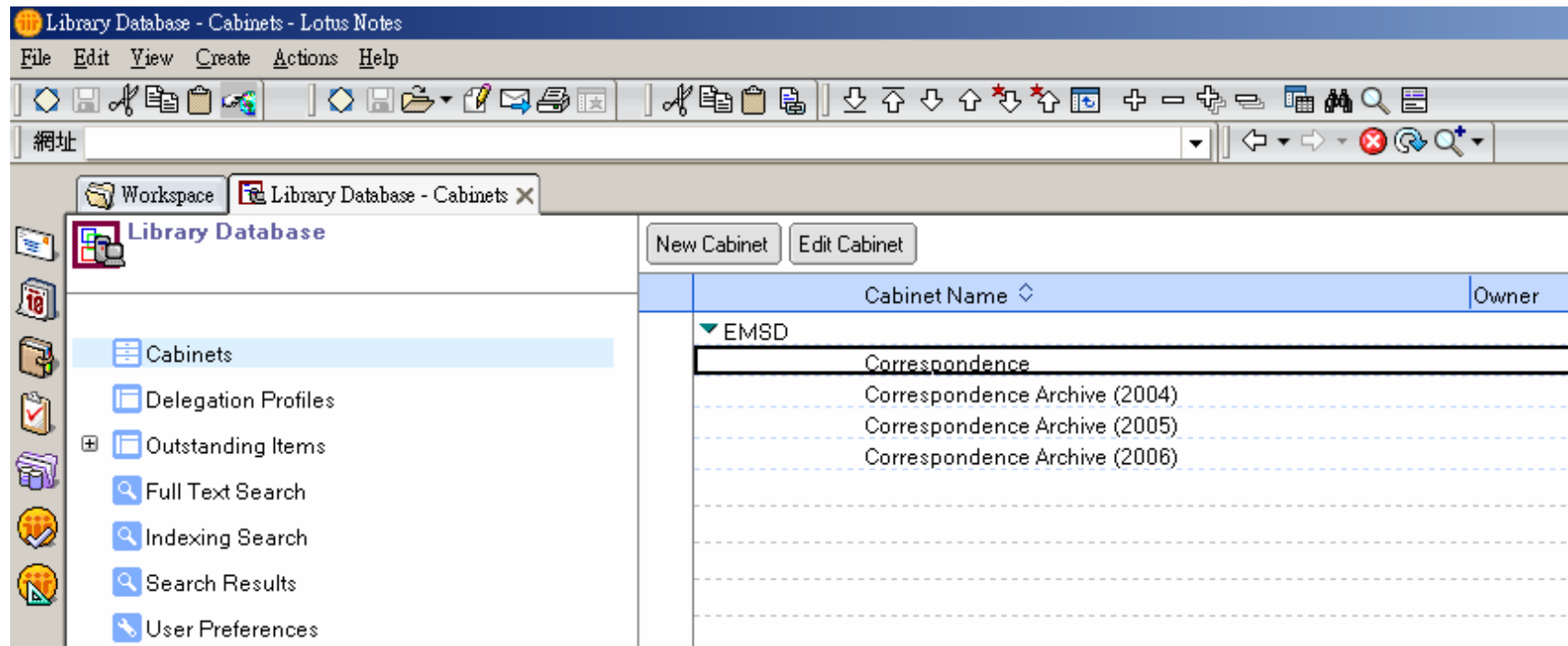
Timely Delivery of
Relevant Business Data

*with a
Difference*



We Archive Sustainable Service Improvement

- Documents in last 7-15 years are maintained in repository which can be retrieved within seconds



Screenshot is for illustrative purpose only

We Archive Sustainable Service Improvement

- Managing incoming/outgoing correspondences within organization or public in a few mouse clicks

The screenshot shows a Lotus Notes workspace titled 'ABC Project Cabinet - Cabinet3. Planning & Implementation/Data Migration - Lotus Notes'. The interface includes a menu bar (File, Edit, View, Create, Actions, Help), a toolbar with various icons, and a navigation pane on the left. The main area displays a table of correspondence records.

Title	Document Date	Received Date	From	To
Data migration specification	2007/09/28	2007/10/02	SK Lai	
Re: Data migration specification	2007/10/03	2007/10/03	Mike Wu	

Screenshot is for illustrative purpose only

Business Excellence

User-Friendliness

Flexible to Obtain Data
When and Where is Needed

*with a
Difference*

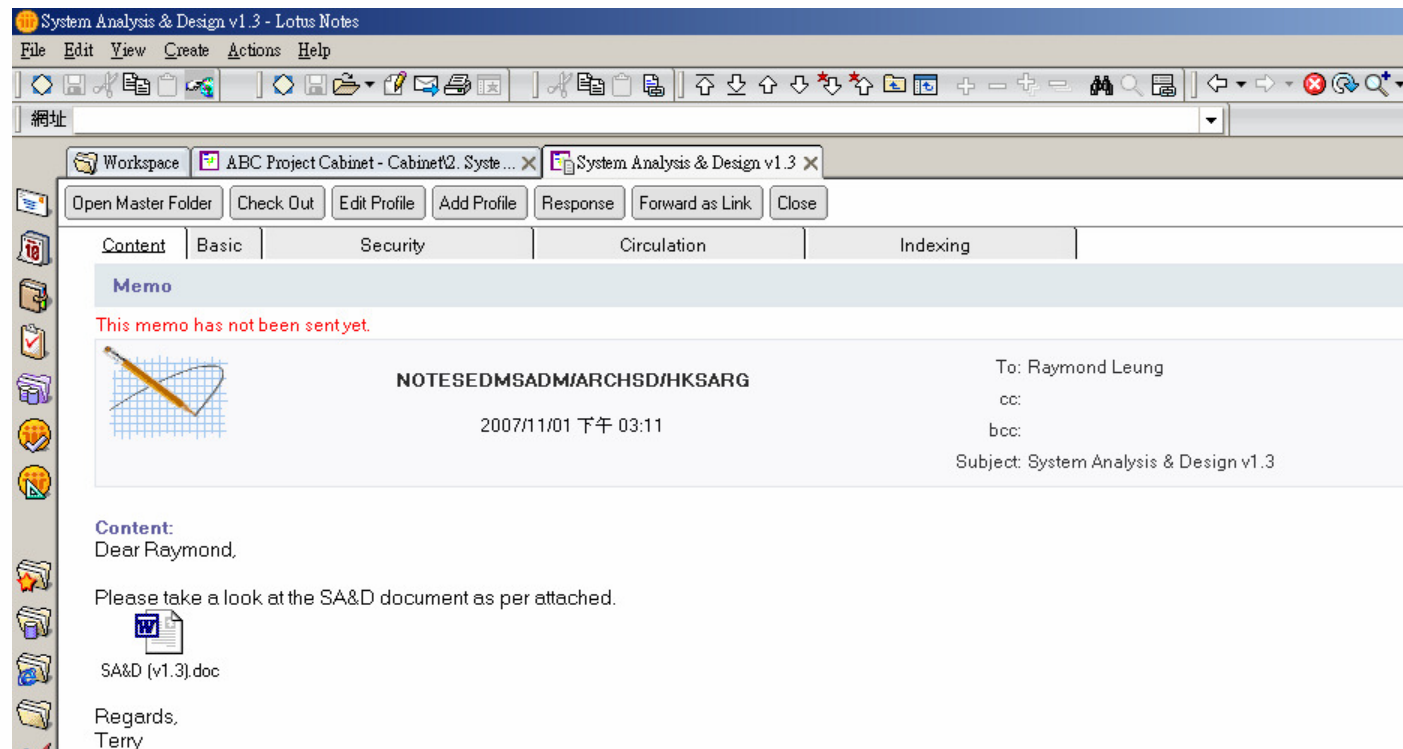


We Provide User-Friendliness

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- Full integration with Lotus Notes, the most common and standardized platform within HKSARG

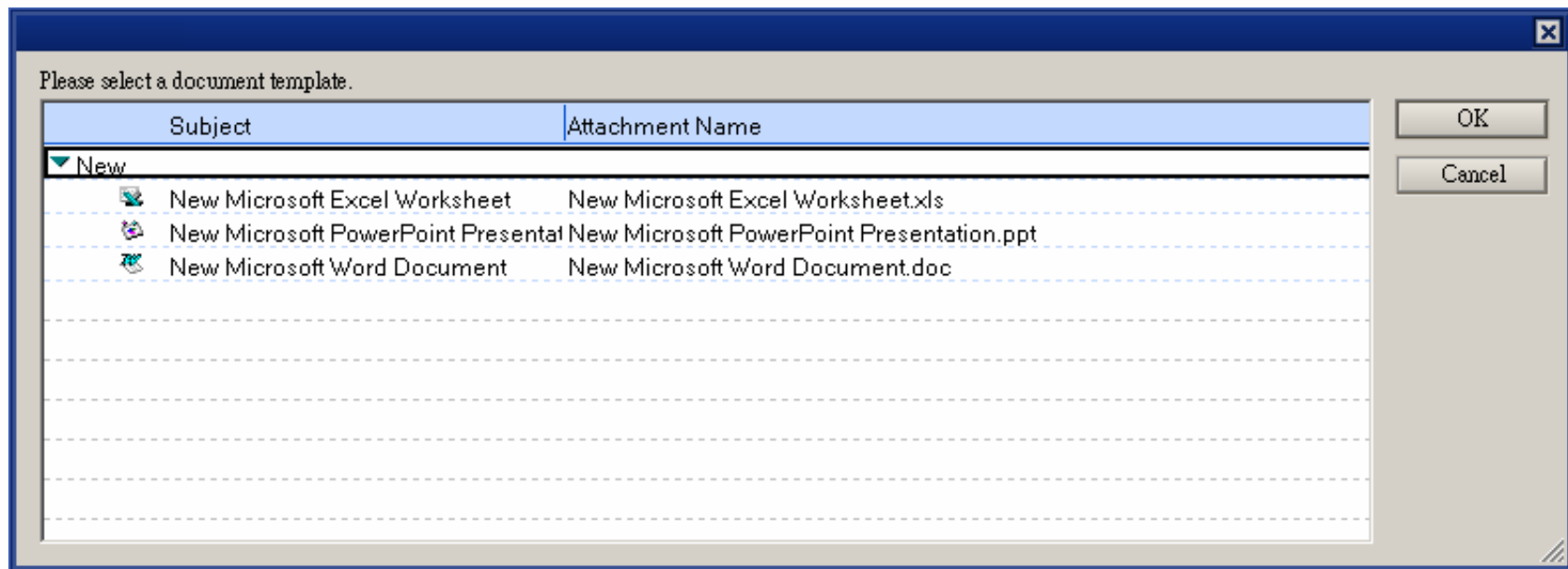


Screenshot is for illustrative purpose only



We Provide User-Friendliness

- Seamless integration with Microsoft Office documents to support version control

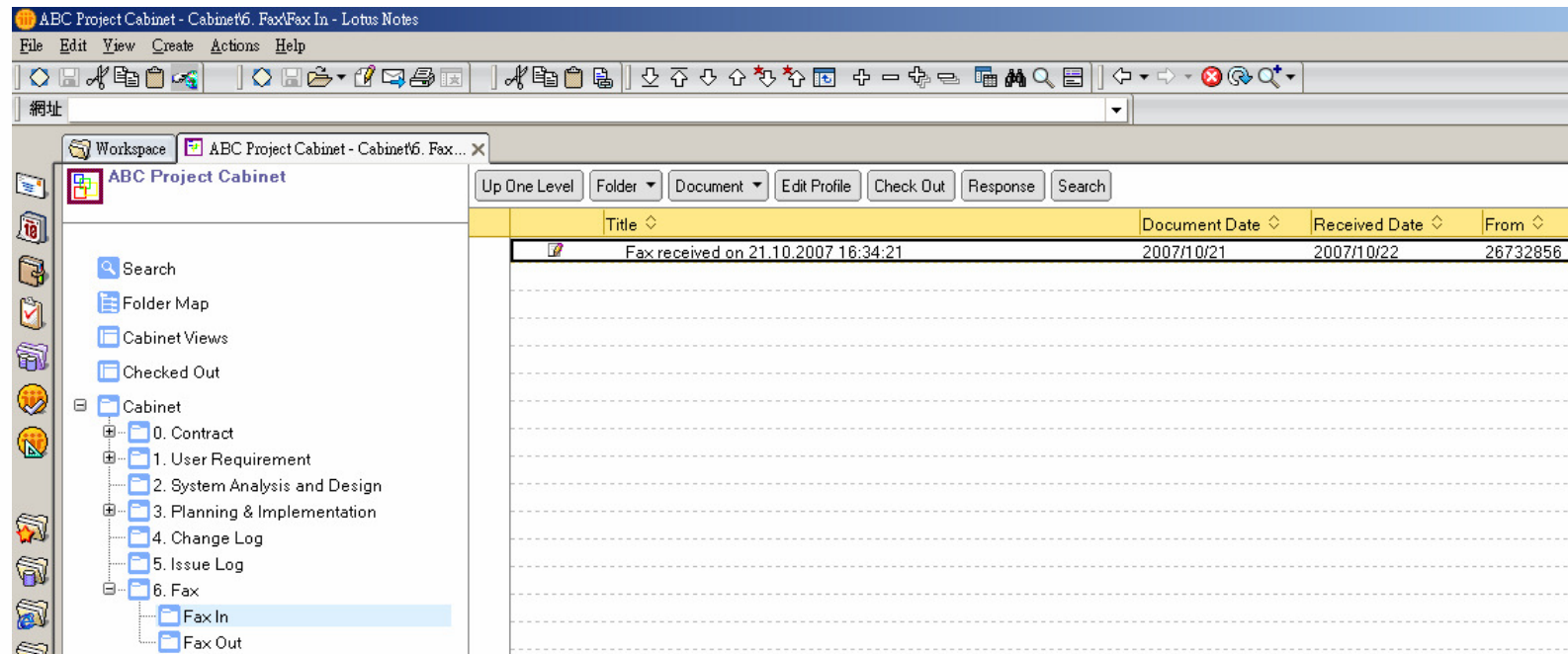


Screenshot is for illustrative purpose only



We Provide User-Friendliness

Seamless e-fax integrated solution with Lotus Notes



Screenshot is for illustrative purpose only

Business Excellence



Re-Definition of Service Models

Trend Setting Impact





We Set the Model

- **The common DMS implemented in departments of DEVB**
 - Current Users: EMSD (2004), DSD (2006), ArchSD (Pilot Run in April 2007)



Business Excellence

Corporate Computer Systems (CCS) of EMSD

Mr. K F Fung

*with a
Difference*

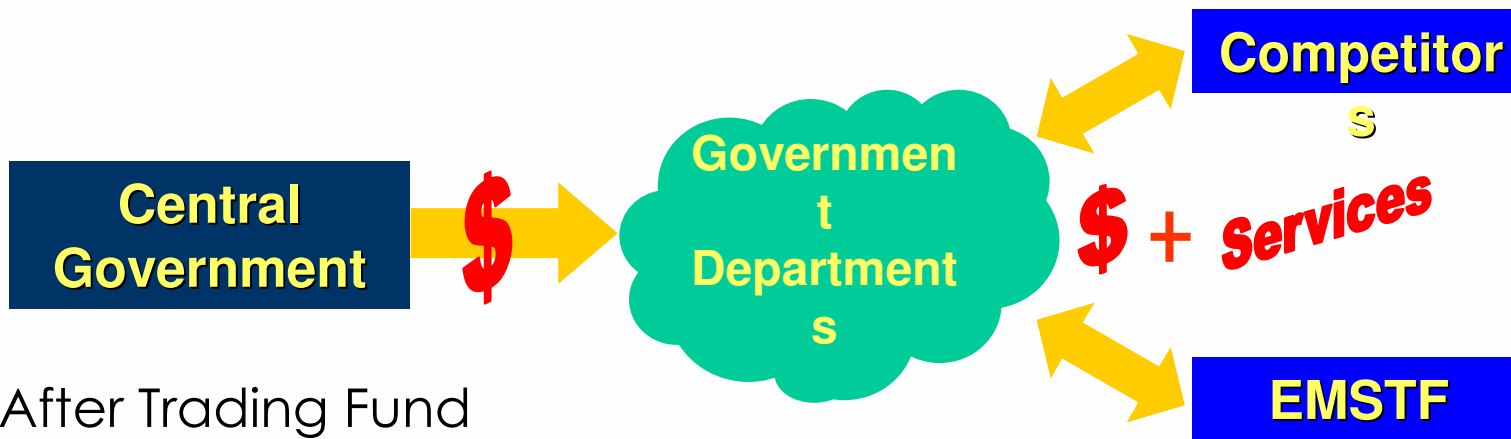


The Operation

- E&M Services Trading Fund (EMSTF)
 - Established in 1996



Before Trading Fund



After Trading Fund



The Services



Health Sector Services



Municipal Sector Services



General Engineering Services



Electronics & Data
Communication



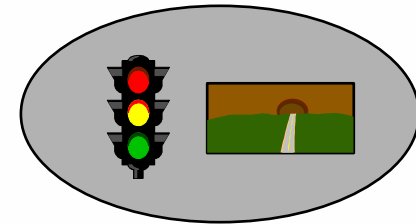
Project Management



Airport Sector Services



Vehicle Engineering Services



Transport, Security
and Central Services

	Trading Services
Annual business turnover	over \$3 billion
Total number of staff	4,850

including both CS and
NCS staff



The Objectives of CCS

- **Providing** an integrated Enterprise Resource Planning (ERP) system for the EMS Trading Fund operations
- **Enhancing** cost control activities in delivery of our services
- **Setting up** front-office job order and maintenance management systems to support diverse EMSTF engineering services
- **Centralizing** financial and human resources management functions
- **Integrating** other corporate activities under the ERP platform
- **Replacing** legacy systems on Service Delivery, Financial Management, HR Management and Business Intelligence



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Innovative Use of ICT

Dared to Challenge
the Conventional

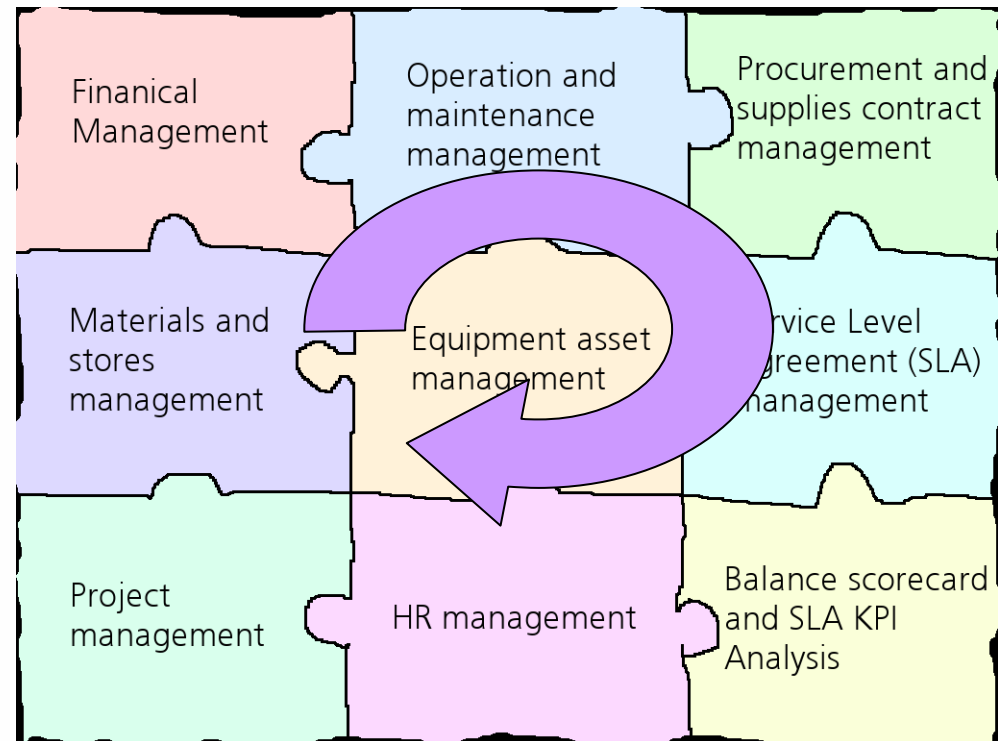
*with a
Difference*





We Are Innovative

- CCS: One-stop, single-source platform for managing EMSTF business operations
- Highly integrated
- Seamless flow of data across functional modules





We Are Innovative

- **First in Hong Kong Government** to use full range ERP (Enterprise Resources Planning) platform to manage the operation of EMSTF



Business Excellence

Sustainable Service Improvement

Timely Delivery of
Relevant Business Data

*with a
Difference*



We Archive Sustainable Service Improvement



- Contract Terms of over 800 Works Contract are maintained
- When contract payment is made, the Term Contract must be referenced : 3-way matching
- Report on total payment of the Term Contract can be generated real-time

We Archive Sustainable Service Improvement

- **Real-time business data** pass from frontline to management for timely respond to rising public expectation

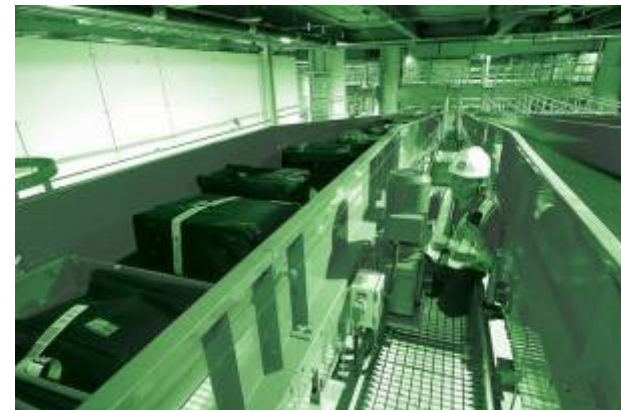


Business Excellence

User-Friendliness

Flexible to Obtain Data
When and Where is Needed

*with a
Difference*



We Provide User-Friendly Interface to Users

- Financial Reports are built on top of MS EXCEL
 - Familiar interface
 - Original EXCEL functions still available (e.g. color coding, formula setting)
- Multi-dimensional Based
 - Can drilldown to different cost elements (e.g. cost centers, jobs, contracts, projects, clients)

Figures are for illustrative purpose only

We Provide User-Friendly Interface to Users

- **Multi-dimensional reports** let users get relevant business data when and where it is needed
- One familiar interface and one single generation of report from a **powerful Data Warehouse**



Business Excellence

Re-Definition of Service Models

Trend Setting Impact

*with a
Difference*





We Set the Model

- 2004 Digital 21 Strategy of former CITB

Government should "lead by example [in] the use of e-business" conducting internet to improve efficiency technology expertise transformation..."

機電工程署  EMSD
Leads the Way



Source:
http://www.info.gov.hk/digital21/eng/strategy2004/strategy_part32.html



We Set the Model

- **First Government department in HK** to apply full range ERP technology
- **Successful incorporation of government practices** into one integrated system
- **Re-define previous norms** of using different computer systems to support different operations
- **Business Process Re-engineering (BPR)** of major work processes



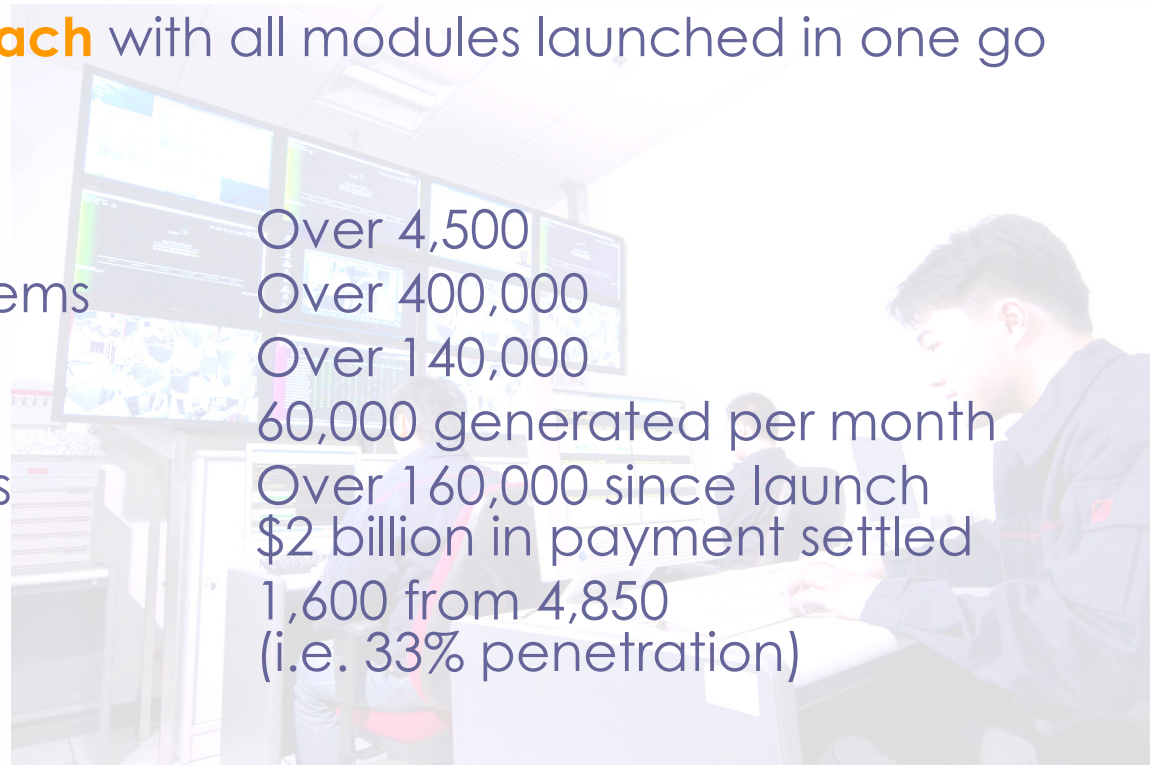


Quick Facts

- Contract Started November 04
- Official Completion April 2006 (total 17 months)

Big band approach with all modules launched in one go

- Venues Over 4,500
- Equipment/Systems Over 400,000
- Spare Parts Over 140,000
- Works Orders 60,000 generated per month
- Purchase Orders Over 160,000 since launch
- Users 1,600 from 4,850 (i.e. 33% penetration)





Quick Facts

- Integrated with Fault Call Centre
- Integrated with in-house platforms
 - Training Management System
 - ePortal for Clients
 - eDMS
 - Lotus Notes
- Interface with other Government platforms
 - eLeave System
 - Treasury's LAFIS (future GFMS system)
 - Computer systems of other clients





Quick Facts

- EMSD takes up system operations and administration roles
- Over hundreds of new customization and configurations performed by in-house support team

Fast Response & Low Cost of Ownership





With A Difference

Thank you