

# Facilitating More Effective Use of XML for E-government

---



**John Wong**  
Assistant Director of  
Information Technology Services  
(Infrastructure and Security Branch)

**Component-Based Development and Web Services Symposium**  
**19 November 2002**

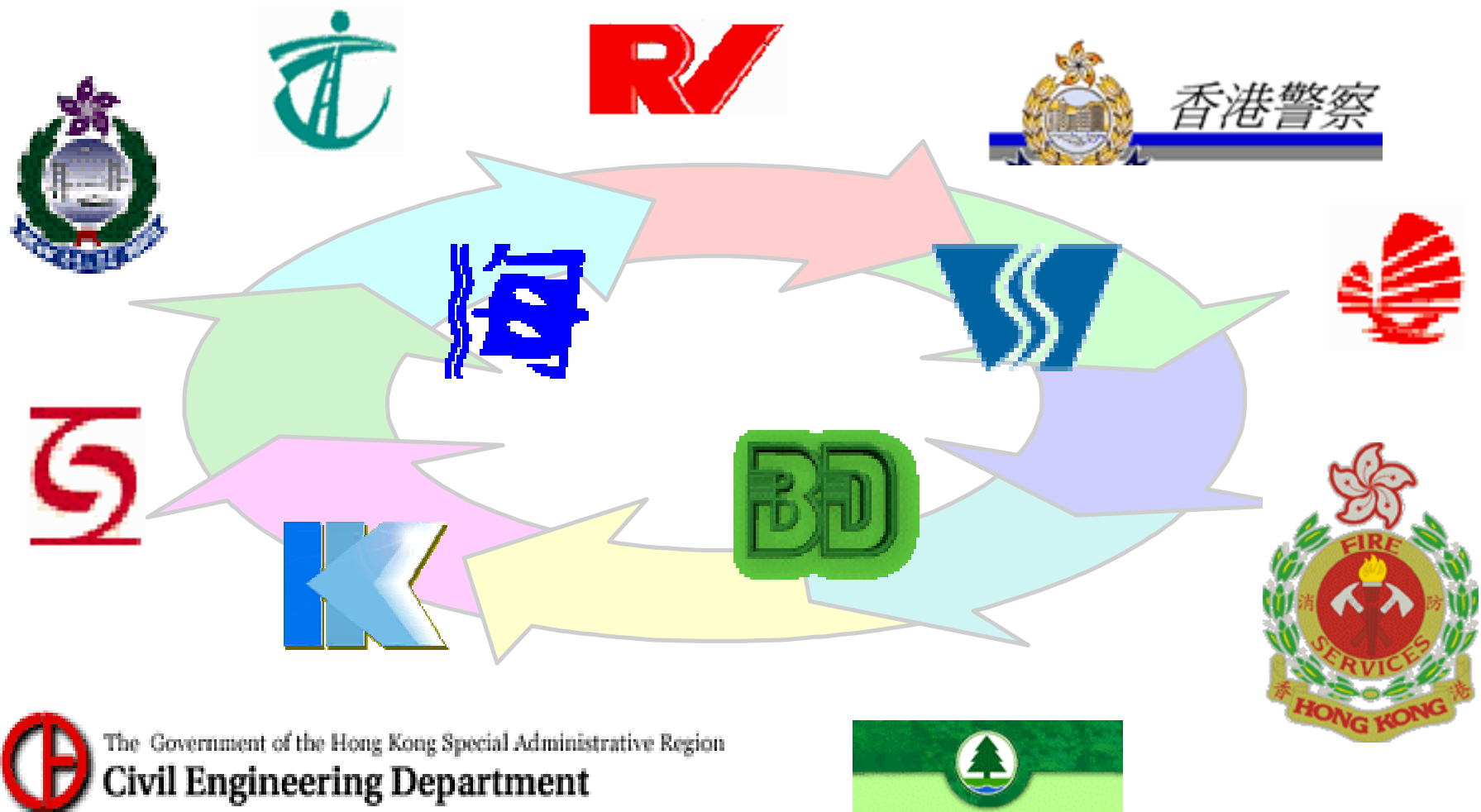
# Agenda



- Overview of the Interoperability Framework (IF)
- Adoption of XML in HKSAR Government
- Facilitation for the more effective use of XML

# Overview of the IF

# How can the IF help them join up?



 The Government of the Hong Kong Special Administrative Region  
**Civil Engineering Department**



# What does the IF do?

- Provides client-centric and join-up services
- Defines the way B/Ds should do e-business
- But, has no binding on interactions among members of the public
- Passes information among systems & services efficiently
- Encourages re-use to speed up projects and in the long run lower the implementation cost
- Allows greater flexibility in the selection of hardware and software

# The IF is a pragmatic framework



- The IF will work only if the stakeholders use it (i.e. B/Ds and the IT industry)
- Is pragmatic and addresses (and balances) the long term and strategic needs of the stakeholders
- Allows stakeholders to have easy access to the IF documents
- Allows stakeholders to request changes at any time
- Will be reviewed every 6 to 12 months to take into account new business requirements and technology advancement

# What is the IF ?



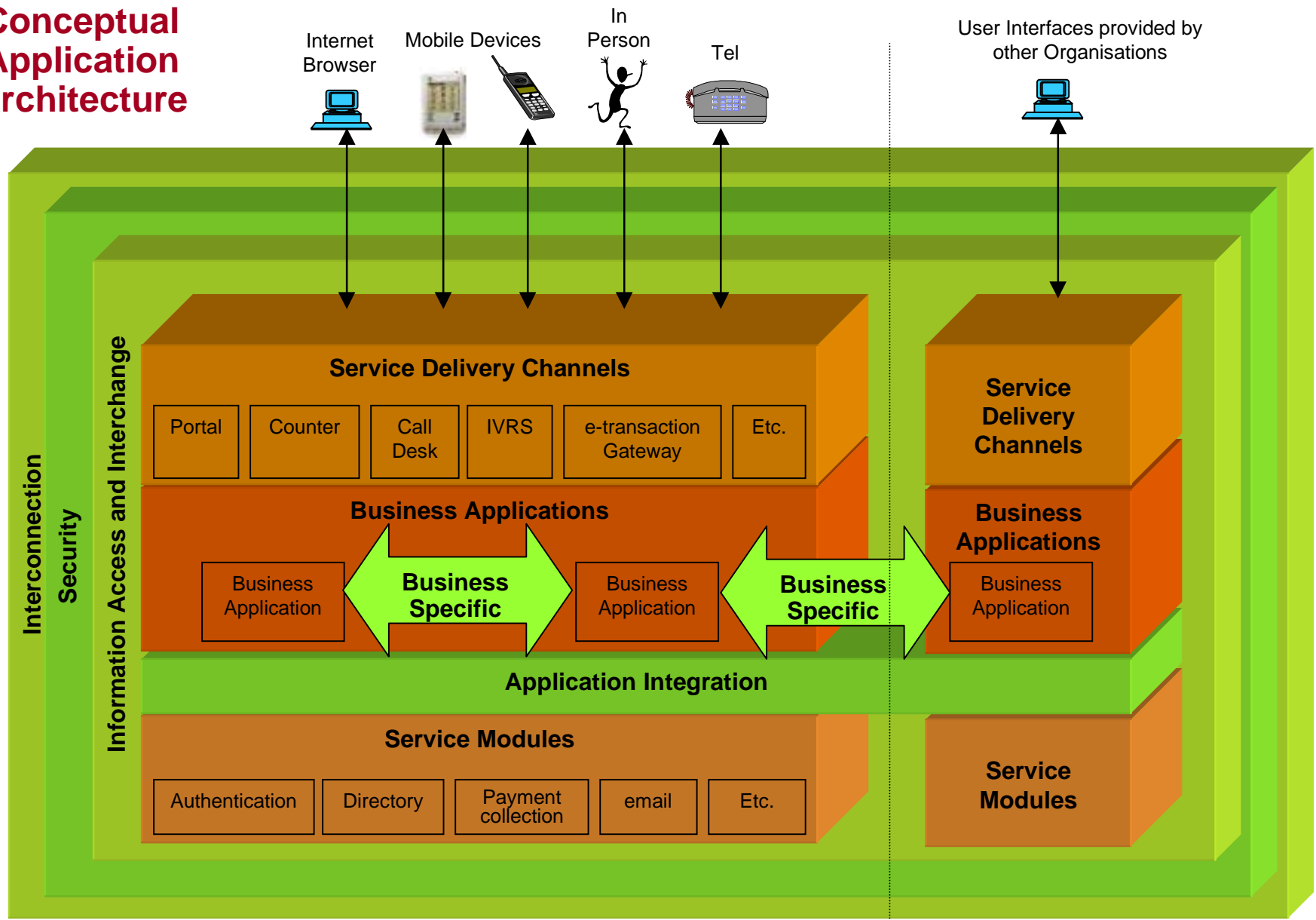
- Is a collection of technical and data specifications that define the interface between interacting applications
- Reflects the open and *de facto* standards we have adopted
- Defines data specifications in XML
- Defines the interfaces and formats across different systems for information interchange

# Five Broad Domains of Needs

- Business process interaction: model, vocabulary, message formats and semantics
- Application: technical specifications for application-to-application integration
- Information flow: technical specifications for file exchange, character sets and encoding and content publishing
- Security: technical specifications for the secure exchange of information
- Interconnection: technical specifications for communicating among systems

(The following diagram shows their relationships)

# Conceptual Application Architecture



Applications in Government Systems

Applications in other Organisations

# **Adoption of XML in HKSARG**

# Interoperability Problems Today



- Business partners have to go through tedious data alignment before they can connect their applications
- Reasons : they have
  - different business vocabulary
  - different data attributes

# Observations from a recent survey



- XML is being used in a number of initiatives. More projects are also planning to adopt XML. This is helpful in improving the efficiency of the economy.
- Industry XML standards are generally adopted
- However, many of the XML schemas are developed for project internal use only. This is also an area for improvement.

# **Measures to facilitate more effective adoption of XML**

# Pursue Standardization



## In which areas?

- Business process interaction and collaboration
- Information sharing
- Data alignment of vocabulary and attributes

# Pursue Standardization



## Some of the Industry Standards

- ebXML's Core Component initiative
- OASIS's Universal Business Language (UBL)
- eXtensible Business Reporting Language (XBRL)
- LegalXML
- NewsML, etc.

## Recommendation of the XMLCG

- Follow pre-agreed XML schema design guidelines
- Re-use available schemas for data items commonly used across B/Ds
- Put in place a mechanism for schema maintenance
- Design project schemas with re-use in mind and publish them to encourage re-use by others
- Share schemas through an XML Registry
- Observe the agreed policy in using the XML Registry

# Work plan of the XMLCG

- Will produce an XML schema design and management guidelines
- Will progressively define core schemas for general adoption
- Will establish an XML Registry to facilitate the efficient sharing of schemas



# Thank You



**Please refer to the IF documents at**

<http://www.itsd.gov.hk/itsd/english/infra/eif.htm>

**Comments and suggestions are welcome**

**Please send to :**

The IFCG Standing Office  
Information Technology Services Department  
**[ifcg@itsd.gov.hk](mailto:ifcg@itsd.gov.hk)**