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# AFACT

November 2014

## YEAR BOOK

Sponsored by: Asia Pacific Center for Trade Facilitation and eBusiness (APCFUNCT), KISH, I. R. Iran  
Executed by: AFACT Secretariat and 2014 Host Secretariat



## **PREFACE: I**

### **AFACT Chairman, Wanawit Ahkuputra**



I am very pleased to welcome you AFACT members to Thailand for 32nd AFACT meetings. It is our honor to organize 2014 AFACT meeting in Chiang Mai and Bangkok consecutively. Thailand will host AFACT Plenary meetings and EDICOM in Bangkok from 25 to 28 November this year. Thus, I would like to take this opportunity to reassure the mission of AFACT to all members to promote trade facilitation and electronic business in Asia and Pacific while keeping a close partnership with UN/CEFACT.

AFACT is the key organization to drive UNCEFACT recommendation in Asia and Pacific. Global trade facilitation aims for simplification of trade procedures and promotion of paperless trade. It is necessary for member countries especially in ASEAN for 10 countries that sign an agreement for AEC 2015 or ASEAN Economic Community 2015 to realize how much more important the trade facilitation will become. Each country must create awareness for both private and public sector on the work of UN/CEFACT and be certain to implement cross-border trade and e-business following the recommendation of UN/CEFACT and AFACT.

UN/CEFACT Recommendation No. 4: NATIONAL TRADE FACILITATION BODIES recommends each country to have the centered organization to handle trade facilitation. There is a need to promote sharing knowledge in trade facilitation and e-Business among Asia- Pacific community nations to help facilitating cross-border transactions. Thailand has not yet registered a national trade facilitation body ([http://www.unece.org/cefact/nat\\_bodies.html](http://www.unece.org/cefact/nat_bodies.html)). Thus, 2014 AFACT meeting in Thailand will definitely raise an awareness of public and private sectors on trade facilitation and move Thailand toward setting up National Trade Facilitation Bodies by 2015.

AFACT enhances the competitive advantages of its members, and it is necessary that the information on the progress of trade facilitation and e-Business to be updated annually through AFACT activities. This yearbook will share the knowledge of e- E-commerce/E-Business and Trade Facilitation Projects Development of Asia- Pacific economy. I wish this sharing of knowledge will leads to competitive advantage among member countries not just in Asia-Pacific region but also the global trade as well. Thank you all delegates and members for participating in sharing.

(Wanawit Ahkuputra)  
Chairman of AFACT, 2014  
Deputy Director of ETDA  
Electronic Transactions Development Agency  
[wanawit@etda.or.th](mailto:wanawit@etda.or.th)



## PREFACE: II

### UN/CEFACT Vice Chair, Mr. Tahseen A. Khan



The economies of Asia together constitute 60% of the world population, contribute about 30% to the world GDP and are expected to contribute 40% to the world GDP by 2030. Most of the economies have generally shown economic growth robust except for some periods of aberrations. The 21st Century is described by many analysts as the “Asian Century”.

Cross-border trade will help in utilising economic potential of this region optimally. Today, there is a near-consensus that cross-border trade helps in economic growth, employment generation, poverty reduction and creating a stable cooperative environment amongst different countries. The countries of the region have entered into various Free Trade Agreements and Economic Partnerships. There has also been significant improvement in cross-border transport infrastructure facilitating movement of goods and people. However, there is a need to simplify and facilitate various trade processes through use of Information Technology, procedural and regulatory cooperation amongst different entities. AFACT plays an important role in this regard by ensuring conformity with the standards and the recommendations developed by UN/CEFACT.

The year 2014 saw many significant developments from UN/CEFACT including finalisation of Recommendation 14 on Authentication of Trade Documents, initiation of Project on Legally Significant Trusted Trans-boundary electronic interactions and discussions on Management of e-identities for Cross-border interactions. These recommendations and projects could provide important guidance of leveraging IT for facilitating Cross-border transactions and I hope that AFACT Members will take keen interest in implementing them.

Many countries have also initiated the process for implementing secure and legally recognised cross-border authenticated electronic transactions. Republic of Korea and India have signed a Memorandum of Understanding for cooperation for development of an arrangement for Mutual Recognition of Certifying Authorities. Many other countries are also considering such arrangements. When such arrangements will be implemented, I believe cross-border trade will get a huge boost through use of Electronic Signatures.

The AFACT Mid-Term Meeting, held in Chiang Mai, Thailand has been a great success and I would like to thank and congratulate the hosts and the AFACT Secretariat. Further, I am sure that the upcoming Plenary Meeting at Bangkok will also be highly productive. I will also like to thank HoDs of member countries/economies for providing their valuable inputs and AFACT Secretariat for their tireless efforts in bringing out the Yearbook.

(T. A. Khan)  
UN/CEFACT Vice Chair

[cca@cca.gov.in](mailto:cca@cca.gov.in)



## PREFACE: III

### **UN/CEFACT Rapporteur for Asia and the Pacific, Mr. Mitsuru Ishigaki**



I was nominated by AFACT as a candidate of UN/CEFACT Rapporteur for Asia and the Pacific and then proposed to UN/CEFACT which officially elected me at the 19th plenary on June 7th 2013. The term is until the 21st UN/CEFACT plenary which is scheduled on 16-17 February in 2015. Given such an honorable and important role, I will do my best to contribute;

(a) To promote and represent interests and activities of UN/CEFACT to AFACT members. Most UN/CEFACT projects have been mainly in those areas directly related with trade facilitation basically on its BUY/SHIP/PAY model. AFACT activities also mainly have been related with the same area. But, not limiting with trade related items, UN/CEFACT positively proceed projects in various significant areas including especially International Trade Procedure Domain (ITPD), Supply chain domain, Agriculture Domain (Agriculture, Fishery, Animal feed etc.) , Travel Tourism and Leisure Domain (TT&L) , Utility Domain and Methodology and Technology Program Development Area.

While joining the activities of UN/CEFACT (Forums and working groups) I would like to feedback important information to AFACT members in timely manner.

(b) To provide impact to UN/CEFACT Bureau and projects members, by introducing and reporting AFACT on-going activities of Business Domain Committee(BDC), Communication Support committee(CSC) and Technology and Methodology committee(TMC) individually. I believe the fruit of our AFACT activities may influence the global approach of UN/CEFACT effectively.

Many regional economical approaches for improving bilateral and/or multilateral relations among countries (including AFACT members) in comprehensive areas are being materialized in various aspects including ITC solutions. AFACT provides good opportunity to AFACT members to share such interesting information.

Members of other regions (Europe, America, Africa, so and so.) in UN/CEFACT may have much interest and we can provide them chances to know more about growing progress of our Asia and the Pacific region and its adjacent countries and economies.

Much thanking to AFACT Host secretariat colleagues of providing this annual plenary in November 2014, I am eagerly looking forward to seeing and communicating with colleagues of AFACT members as many as possible.

Mitsuru ISHIGAKI

UN/CEFACT Rapporteur for Asia  
and the Pacific

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## PREFACE: IV

### General Secretary of AFACT, Dr. Mahmood Zargar



In the year 2014, We as the permanent secretariat tried our best to coordinate and execute AFACT affairs. Here is a brief report of secretariat activities:

1. We tried to update AFACT official website which is AFACT appearance and recently we made a changes in it which made it more useful and some references for the users.
2. AFACT conference call meetings - AFACT has most of its meetings through online conference calls. Although the StC members of AFACT had not many conference calls during 2014, but TT&L working group had a regular program using the facility prepared by AFACT Secretariat and they set their meetings virtually once in a month. So we could to support SLH pilot project to be executed in a smooth manner.
3. AFACT year book – The secretariat collected the country reports from country and associate members and then delivered the 2014 year book to the 2014 plenary. As previous years, we have prepared the book in CD format.
4. Attending in APTF2014 meeting in Bangkok and participate third annual Regional Organizations Coordination for TF (ROC-TF) meeting actively.
5. Attending in APTF2014 multi-exhibition besides the 2014 TILOG in Bangkok with the best cooperation and efforts of ETDA as the host for AFACT 2014.
6. Future Works – AFACT is going to follow its membership in ECOSOC in 2014. During 2012 and 2013 all necessary actions are done by AFACT Secretariat. The process is initiated months ago, and we are waiting to hear from ECOSOC.
7. AFACT also welcomes new members and so we will coordinate anything needed to reach this goal.
8. Finally we had good Mid-Term Meeting in Chiang Mai, Thailand and I appreciate 2014 AFACT chair for his good planning.

(Mahmood Zargar)  
AFACT General Secretary  
[zargar@AFACT.org](mailto:zargar@AFACT.org)



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## About AFACT

AFACT stand for the Asia Pacific Council for Trade Facilitation and Electronic Business. It's a non-profit, Non-governmental organization that is open to participations from the representatives of member economies and experts from private sectors within the Asia-Pacific region.

The forerunner of AFACT was ASEB (Asia EDIFACT Board) established in 1990 in response to disseminate EDIFACT (Electronic Data Interchange for Administration, Commerce and Transport) policies and activities in the Asia-Pacific region. After 8 years' contribution to facilitate international transaction within the region, through the simplification and harmonization of procedures and information flows, the need for re-engineering was raised in the 16th ASEB meeting to conform to the rapidly changing trend of EDI and EC, and to respond to the successful restructure of UN/CEFACT. As a result of re-engineering, AFACT marked down the era of ASEB in 1998. In 1999, the epoch of AFACT was officially commenced.

AFACT aims to promote the commitment and development of trade facilitation, electronic business policies and activities in the Asia Pacific region, mainly focusing on those promoted by UN/CEFACT (United Nations Center for Trade Facilitation and Electronic Business), to guide, stimulate, improve and promote the ability of business, trade and administrative organizations from members, as well as to exchange products and relevant services effectively within AFACT community.

Currently, there are 19 members from Afghanistan, Australia, Cambodia, China, Chinese Taipei, India, Indonesia, Iran, Japan, Korea, Malaysia, Mongolia, Pakistan, Philippines, Saudi Arabia, Singapore, Sri Lanka, Thailand, and Vietnam. Each of which is represented by a local organization dedicated in promoting the application of standards and recommendations, e.g. UN/EDIFACT, developed by UN/CEFACT. PAA (Pan-Asian eCommerce Alliance) is the associate members of AFACT, which is dedicated to promote cooperation in implementing trade facilitation and eCommerce in this region.

There are three working Committees acting under AFACT, which has its own mission and programs of work. The committees are, Business Domain Committee (BDC), Community Support Committee (CSC) and Technology and Methodology Committee (TMC)

The common mission of those working committee's are:

1. Developing methods to facilitate trade transactions, fit to the member economies and in conformity with the standards and the recommendation developed by UN/CEFACT;
2. Promoting both the use of these methods, and associated best practices, through channels such as government, industry and service associations;
3. Coordinating its work with UN/CEFACT and other relevant international, regional and non-governmental organizations; and
4. Enhancing the cooperation among the AFACT members and promoting the objectives of the mission statement in the Asia Pacific region.



## **AFACT Bylaws - Tehran Version**

### **Article 1 Name**

The name of this organization shall be the Asia Pacific Council for Trade Facilitation and Electronic Business (hereinafter referred to as "AFACT").

### **Article 2 Mission Statement**

AFACT aims to support in the Asia Pacific region and its adjacent countries and economies (hereinafter collectively referred to as "Region") policies and activities, especially those promoted by United Nations Center for Trade Facilitation and Electronic Business (hereinafter referred to as "UN/CEFACT"), dedicates to stimulate, improve and promote the ability of business, trade and administrative organizations, to exchange products and relevant services effectively through the simplification and harmonization of processes, procedures and information flows in a non-political environment.

Its principal focus is to facilitate international transactions, through the simplification and harmonization of procedures and information flows, and so contribute to the growth of global commerce.

### **Article 3 Terms of Reference**

The principles of the mission statement are to be achieved by:

- (a) Disseminating the standards and the recommendations published by UN/CEFACT;
- (b) Analyzing and understanding the key elements of international transactions and working for the elimination of constraints;
- (c) Developing methods in conformity with those developed by UN/CEFACT to facilitate transactions, including the relevant use of information and communication technologies (ICT) such as but not limited to UN/EDIFACT and ebXML, securing coherence in the development of standards and recommendations by cooperating with other interested parties, including international, intergovernmental and non-governmental organizations;
- (d) Promoting both the use of these methods, and associated best practices, through channels such as government, industry and service associations;
- (e) Coordinating its work with UN/CEFACT and other relevant international, regional and non-governmental organizations; and
- (f) Enhancing the cooperation among the AFACT members and promoting the objectives of the mission statement in the Region.

### **Article 4 Structure**

AFACT shall be a non-profit, non-political, non-government, voluntary and independent organization.



## **Article 5 Membership**

Membership shall be divided into two categories and the qualifications for membership in each category are provided hereunder. The members of each category are shown in Appendix 1 hereto:

**Member-** The countries and economies in the Region represented by a public or private corporation, boards, commissions, organizations, associations and other bodies (whether governmental, public or private, and whether incorporated or unincorporated) involved in promotion and development of Trade Facilitation and Electronic Business, hereinafter collectively referred to as “Body”, provided that Body is eligible to establish a focal point as provided by the Article 10 hereunder.

Agencies of the United Nations can also be members.

**Associate member-** Any other Body from the Region or relevant international organization located in the Region, committed to similar objectives as AFACT.

Any Body in a country, economy or organization wishing to join AFACT must submit an application for membership in writing to the AFACT Secretariat who shall circulate it to the Steering Committee members for consideration and acceptance, as well as to all members and associate members for consultation. If approved, the Steering Committee shall report to the Plenary on the approval of the application for ratification.

The Chairperson of the AFACT may also invite non-member countries, economies and experts as observers or special invitees.

## **Article 6 Plenary**

The Plenary shall include members, associate members and observers, represented by their Heads of Delegations. A simple majority of the members is required for a quorum.

The Plenary Meeting shall be a forum to exchange views on any areas of common interest including the latest developments in each member or associate member under the ambit of the Mission Statement.

The Plenary shall be the highest decision making body of AFACT and shall have the responsibility of ratifying all major decisions and monitoring the execution of the adopted resolutions.

The preferred way of reaching decisions shall be by consensus. However, the Chairperson shall have the authority to call for a vote if, in his view, consensus cannot be reached on a particular issue. In such cases, a simple majority of all voting members constitutes a decision. In case of a tie, the Chairperson shall cast the deciding vote.

Only members are eligible to vote. The vote shall be cast by the Heads of Delegations or their designated representative in writing.

Notwithstanding of the foregoing, for dissolution of AFACT, the adoption of the Bylaws or amendment thereof, a two-third majority of all voting members is required.

Absent members can have the option to vote by email or other means, or by proxy entrusted to the Chairperson or a fellow AFACT member.



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The Plenary shall meet at least once a year.

## **Article 7 Officers, Hosting Member and Secretariats**

### **7.1 Officers of AFACT**

The Officers of AFACT shall be the Chairperson, two Vice-Chairpersons and the head of AFACT Secretariat (herein after referred to as "AFACT Secretary".) The term of office for the Chairperson and two Vice Chairpersons shall be one year. The term of office for AFACT Secretariat shall be provided as per the Appendix 3 to the Bylaws.

### **7.2 Hosting Member**

Annually AFACT shall identify a member (herein after referred to as "Hosting Member") to host the meetings.

The Hosting Member shall nominate the Chairperson, with one Vice-Chairperson being nominated by the next hosting member (herein after referred to as "Chairperson Elect") and the immediate former Chairperson acting as the other.

At the start of each Plenary, the identification of next Hosting Member and the Chairperson Elect shall be approved.

The Hosting Member shall nominate a person who shall be the focal point for hosting AFACT meetings (hereinafter referred to as "the Hosting Secretary").

Their term shall start immediately after the previous Plenary is adjourned. In order to ensure a smooth hand-over between the two Hosting Secretaries, a Joint Hosting Secretariat shall exist for an agreed period, after the previous Plenary.

### **7.3 AFACT Secretariat**

The Asia Pacific Center for Trade Facilitation and Electronic Business (APCFAC) has been established in 2012 and registered in the KISH Island in Islamic Republic of Iran (hereinafter called "the center").

The center is independent from the Government of the Islamic Republic of Iran and will act as the Secretariat office of AFACT and will operate in accordance with its own Bylaws.

The center's duties include such as but not limited to administration of financial affairs of the AFACT, budgetary issues, accounting and audit, fund raising, Yearbook editing and publishing, supporting the annual Hosting Member in organizing the mid-term Steering Committee meeting, and annual Plenary and other meetings, and other Secretariat related tasks.

The terms of reference of AFACT Permanent Secretariat is shown in the Appendix 3.

The AFACT Secretariat shall be nominated by the Steering Committee and ratified by the Plenary as permanent entity based on the Terms of Reference described in the Appendix 3 to this Bylaws.

When AFACT Secretariat finds an exceptional difficulty of a Hosting Member in performing its duties to host, AFACT Secretariat should call a Steering Committee meeting to decide an alternative member to host the organization according to the provisions provided by the Article 8 herein.



## **Article 8 Steering Committee**

The Steering Committee is responsible for the management and coordination of AFACT between the Plenary of consecutive years. The Steering Committee also supervises the progress status of the decision made by the Plenary.

The composition of the Steering Committee shall be as follows:

- Chairperson (of AFACT)
- Two Vice-Chairpersons (of AFACT)
- UN/CEFACT Rapporteur for Asia (as an Advisor),
- Any other officer of UN/CEFACT (as an Advisor) from the Region
- Chairpersons of the Executive Committees provided by the Article 9 herein
- Two Heads of Delegation appointed by the Plenary who will hold office as members of the Steering Committee for a term of two years.
- Head of AFACT Secretariat

In case the net total number of the Steering Committee members becomes less than eleven (11) owing to overlapping of the role of the Steering Committee members, Plenary may elect additional member from other AFACT member countries/economies

The Steering Committee is chaired by the Chairperson of AFACT

The Hosting Secretary shall be present in all Steering Committee meetings.

The agenda for the Steering Committee meeting shall be circulated to all Heads of Delegations and Chairpersons of Executive Committees for comments before a meeting. The AFACT Secretariat and the Hosting Secretariat shall jointly maintain the minutes of the Steering Committee meetings to be adopted by the succeeding meetings. The AFACT Secretariat shall publish the minutes on the AFACT website.

The Chairperson may invite Conveners of Working Groups for specific meetings, as appropriate and all Heads of Delegation shall be entitled to attend meetings of the Steering Committee.

Where required, the Steering Committee shall be empowered to take decisions on behalf of AFACT between Plenary meetings except the agenda to dissolve AFACT or to revise the Bylaws. In such cases, every effort shall be made to consult with the Heads of Delegations. All inter-sessional decisions of StC will call for endorsement of plenary either in its meeting or through inter-sessional approval process.

Steering Committee decisions shall be made by consensus.

The Steering Committee shall meet at least twice a year. This can be either in the form of a physical meetings or online meetings.

## **Article 9 Executive Committees and Working Groups**

### **9.1 Executive Committees (hereinafter referred to as “EC”)**

AFACT shall have Business Domain Committee (hereinafter referred to as “BDC”), Technology & Methodology Committee (hereinafter referred to as “TMC) and Community Support Committee (hereinafter referred to as “CSC”) as EC.



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Each EC must have a mandate, terms of reference, and work program. Each EC member shall recommend its Chairperson to the Steering Committee for the ratification by the Plenary. Each EC may appoint a Vice Chairperson and EC Secretary whenever necessary. The term of office for the Chairperson and the EC Secretary shall be for a period of two years.

**9.2 Working Groups (hereinafter referred to as “WG”)**

To establish or to reform a WG under a specific EC, the interested parties shall submit the Chairperson of EC an expression of interest endorsed by at least three HoDs, a terms of reference, and an initial work program (hereinafter collectively referred to as “Submission”). Each EC shall evaluate the Submission. When the Submission is acceptable for EC, the Chairperson of EC shall propose a new WG or a reformed WG to the Steering Committee for ratification by the Plenary

Each WG member shall elect its Convener to be approved by the Steering Committee, and ratified by the Plenary. Each WG may appoint a WG Secretary whenever necessary. The term of office for the Convener and the WG Secretary if it is appointed, shall be for a period of two years.

The WG shall meet at least twice a year. This can be either in the form of physical meetings or online meetings.

The Chairperson of each EC shall report its activities, including those of WGs under the EC, to the Plenary. The Convener of WG, if needed, reports to the Plenary in details its progress of Program of Work.

**9.3 Termination of EC and WG**

Any EC or its WG shall be terminated by the resolution of the Plenary on the recommendation of StC, if it has not passed its Program of works and/or its activities to the Plenary for three years.

**9.4 Task Force Team**

The Steering Committee may organize a Task Force Team (hereinafter referred to “TFT”) to carry out a specific mission and/or function across the ECs delegated by the Steering Committee. The AFACT Chairperson shall recommend the TFT Chairperson to the Steering Committee for approval. TFT shall have terms of reference and a work program. TFT shall report the Steering Committee its activities at least once a year.

**Article 10 Focal Point**

Each AFACT member is required to have a single focal point (hereinafter referred to as “FP”), dedicated to the promotion, dissemination and implementation of AFACT objectives.

The FP shall identify the Head of Delegation and a contact person who shall be responsible for communication with the AFACT Secretariat the Hosting Secretary and all related parties. The FP shall provide the AFACT Secretariat updated information for communication, such as telephone number, fax number and e-mail address.



### **Article 11 EDICOM**

EDICOM is the annual conference and exhibition of AFACT. It features the latest technology and information on Trade Facilitation, Electronic Business, UN/CEFACT and other related activities.

EDICOM shall be organized by the Hosting Member subject to availability of their resources, adjacent to the Plenary, in consultation with the Steering Committee.

### **Article 12 Relationship between AFACT and UN/CEFACT**

As set out in its Mission Statement, AFACT seeks, amongst other objectives, to promote the aims, objectives and activities of UN/CEFACT within the Region. To this end, the delegations of the Region to UN/CEFACT provide a strong link between AFACT and UN/CEFACT.

The UN/CEFACT Rapporteur for Asia provides another significant linkage. The Rapporteur shall be appointed by the Plenary of UN/CEFACT preferably on the recommendation of the AFACT Plenary. (The Mandate of the UN/CEFACT Rapporteur for Asia is attached as Appendix 2).

AFACT is also strongly encouraged to identify and nominate potential members to the UN/CEFACT for its various positions whenever such vacancies arise and nominations are sought. These nominations shall be sent by AFACT Secretariat to the UN/CEFACT Secretariat after full consultation with AFACT HoDs.

Close coordination between AFACT ECs (including their WGs) and relevant UN/CEFACT working groups and/or teams is strongly encouraged and both bodies shall use their best endeavors to ensure this coordination. This is most effectively achieved when there is a formal relationship between the respective groups and/or teams.

### **Article 13 Expenses**

The Hosting Member shall cover expenses required in organizing the Mid Term Steering Committee meeting, Plenary Meeting, the Steering Committee Meeting, EDICOM, and the meetings for EC and WG held before the Plenary Meeting, excluding food and beverage services which should be at host's discretion.

The Hosting Member is entitled to charge a participation fee for each delegate if it is extremely necessary to host the event. The amount to be charged shall be decided in advance in consultation with the Steering Committee.

The AFACT Secretariat shall cover all the costs incurred in performing the responsibilities as the secretariat and maintaining the AFACT Website.

### **Article 14 Intellectual Property Rights Policy**

AFACT shall own the copyright in all draft and published deliverables developed under or pursuant to its procedures including, without limitation, Specifications, Rules, Guidelines, Minutes, Presentation materials, Models and Libraries which are published under the name or general auspices of AFACT regarding all its official procedures, subject to the underlying copyright of the contributing parties and all other legitimate copyright owners. AFACT will not



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charge royalties or any similar fees in connection with the implementation or use of the deliverables by those applying the AFACT deliverables in accordance with the applicable procedures of AFACT. AFACT disclaims all warranties, express or implied, including specifically but not limited to, any warranty that the use of the information in the deliverables will not infringe any rights or any implied warranties of merchantability or fitness for a particular purpose.

### **Article 15 Working Language**

The working language of AFACT shall be English.

### **Article 16 Effectiveness**

These Bylaws enter into effect on 21th November, 2012, upon ratification by the AFACT Plenary.

## **Appendix 1 List of Members and Associate Members as of November, 2012**

### **Members:**

Afghanistan , Australia , China , Chinese Taipei , Cambodia , India , Indonesia , Iran , Japan, Malaysia , Mongolia , Pakistan , Philippines , Korea , Saudi Arabia , Singapore , Sri Lanka , Thailand , Vietnam

### **Associate Members:**

Pan Asian e-Commerce Alliance (PAA)

## **Appendix 2 Mandate UN/CEFACT Rapporteur for Asia**

The mandate of the UN/CEFACT Rapporteur for Asia (herein after referred to as "Rapporteur") shall be carried out, where appropriate, in liaison with heads of delegation to UN/CEFACT from the Region, as well as with the secretariat of the United Nations Economic Commission for Europe (UNECE) and other regional commissions and the UN/CEFACT Bureau.

Within Region, the Rapporteur shall:

- (a) Promote and represent UN/CEFACT's interests and activities to Governments, intergovernmental organizations, relevant trade associations and business and trade facilitation organizations;
- (b) Encourage the participation of experts in UN/CEFACT's work program and stimulate the implementation of UN/CEFACT's standards, recommendations and other deliverables;
- (c) Coordinate UN/CEFACT's activities in the Region.

The Rapporteur shall present a report at each UN/CEFACT Plenary. The Rapporteur may raise issues directly with the UN/CEFACT Bureau and have an open invitation to attend the Bureau meetings in a consultative capacity.

The appointment as Rapporteur is for two years, renewable.



## **Appendix 3      AFACT Secretariat Terms of Reference**

### **1. Background**

The 27th AFACT Plenary resolved that AFACT should have a permanent secretariat and to assign Iran as the permanent secretariat.

It was the sense of the 27th Plenary that successive and earnest contribution extended by Chinese Taipei as ex secretariat should be commended and commemorated.

### **2. Terms of Reference**

The purpose of AFACT Secretariat is to explore, review and identify the most practical approach for managing and operating AFACT tasks on Trade Facilitation and Electronic Business in Asia Pacific region.

The AFACT Secretariat should coordinate with UN/CEFACT Rapporteur for Asia to achieve the mission of the AFACT Secretariat.

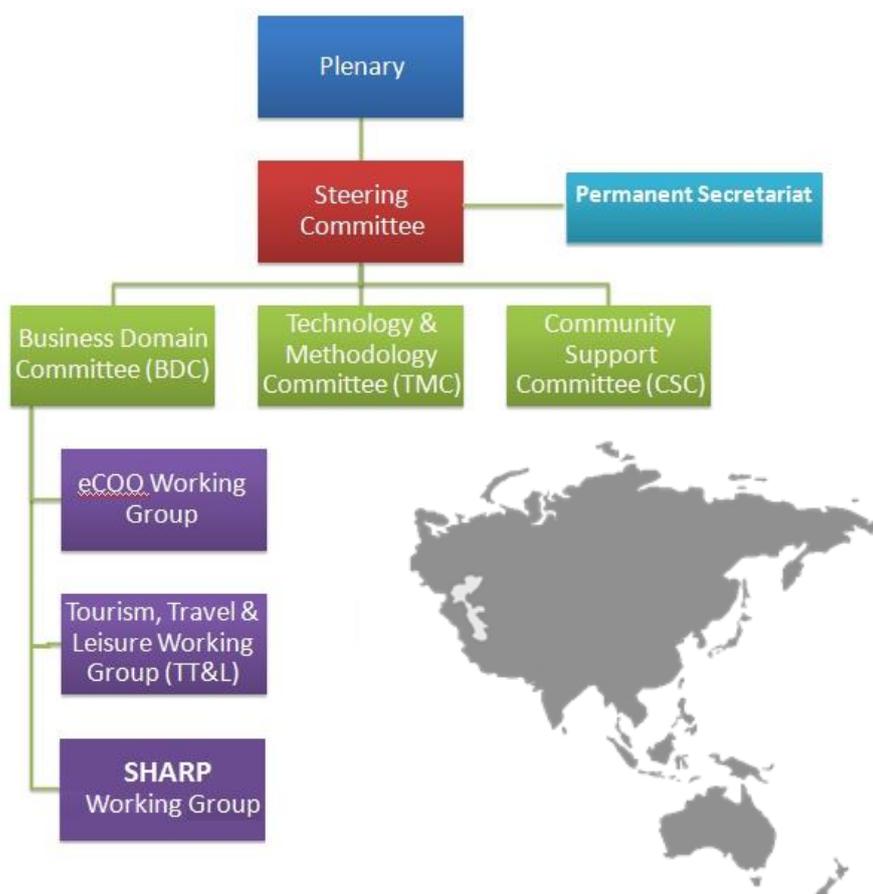
Taking account of existing AFACT Terms of Reference, these shall include;

- a) To document all AFACT related activities and publish them on the AFACT web site,
- b) To maintain the AFACT Website including contact information of members as well as the permitted information of respective Focal Points,
- c) To support the hosting secretary for organizing AFACT Plenary meeting and its Executive Committee meetings, AFACT Steering Committee meeting and EDICOM,
- d) To facilitate the affairs in relation to new membership application,
- e) To attend AFACT related meetings to support the hosting secretary,
- f) To attend UN/CEFACT Plenary meeting, if possible, to follow up its decision and discussion made during the meeting and feedback them to AFACT community, and
- g) Any other business.



## AFACT Structure & Members

### Structure



### Members

Afghanistan	India	Mongolia	Sri Lanka
Australia	Indonesia	Pakistan	Saudi Arabia
China	I. R. Iran	Philippines	Thailand
Chinese Taipei	Japan	Korea	Vietnam
Cambodia	Malaysia	Singapore	

### Associate Member:

Pan Asian eCommerce Alliance (PAA)



## Steering Committee Board Members

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# Members Progress Reports

- ✓ Chinese Taipei Progress Report
- ✓ India Progress Report
- ✓ Iran Progress Report
- ✓ Japan Progress Report
- ✓ Korea Progress Report
- ✓ Vietnam Progress Report

## And

- ✓ UN ESCAP Progress Report
- ✓ PAA Progress Report



## **Member Progress Report**

### **Chinese Taipei**

**32st AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



**Taipei EC/EDI Committee**



## SECTION 1 – GENERAL CONDITION UPDATE

### 1.1 Ranking on the Global Index

Chinese Taipei has made a long-term commitment to improving infrastructure and developing the capability of its government and industry for Information and Communication Technology (ICT) in order to maintain its leadership in the Global Index rankings. The results released by the World Economic Forum (WEF, had Chinese Taipei ranked 14th place worldwide in the 2014 Networked Readiness Index, and it maintained its 12th place worldwide ranking in the 2013 Global Competitiveness index. Regarding the rise of global competition in the area of cloud computing, Chinese Taipei ranked 7th place in the Cloud Readiness Index, as analyzed by the Asia Cloud Computing Association (ACCA). Furthermore, Chinese Taipei ranked 8th out of 55 counties for global e-Government in 2013, as determined by Waseda University Institute of e-Government. This shows that Chinese Taipei has emphasized and invested in emerging technology applications (refer to Table 1 for details).

**Table 1 Chinese Taipei's Rankings on Global Indices**

**Table 1. Chinese Taipei's rankings on global indices**

Index	Source	Ranking	Release Date
Networked Readiness Index	WEF	14 (World)	2014.04
Global Competitiveness Index	WEF	12 (World)	2013.09
Cloud Readiness Index	ACCA	7 (AP)	2014
Ranking of Global e-Government	Waseda University Institute of e-Government	8 (World)	2013

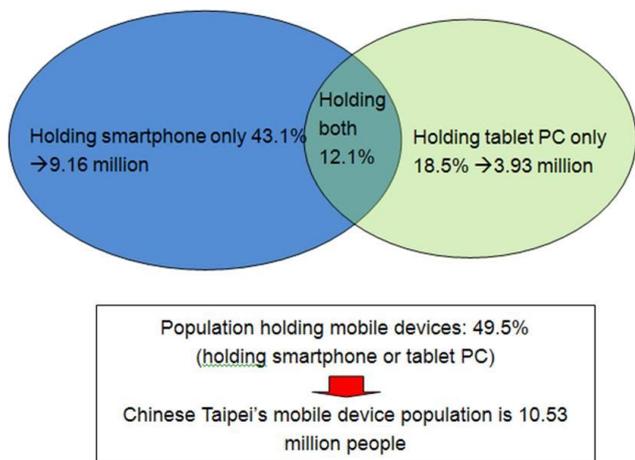
Source: WEF (2013, 2014), ACCA (2014), Waseda University Institute of e-Government (2013)

### 1.2 Key ICT Index

#### 1.2.1 Intelligent mobile device penetration rate

According to a survey conducted by FIND (Foreseeing Innovative New Digi-services, III) that was aimed at people older than 12 during the period from March to May in 2013, the smartphone penetration rate is 43.1% (about 9.16 million people), an increase of 16.9% (about 3.59 million people) compared with last year. Furthermore, the tablet PC penetration rate is 18.5% (about 3.93 million people), which is an increase of 8.5% in comparison with last year (about 1.81million people). Applying the speed of growth to 2015, the penetration rate of smartphones is estimated to reach 67.2% (about 14 million people), while the penetration rate of tablet PCs is estimated to reach 31.6%(about 6.72 million people)(refer to Figures 1~3 for details).

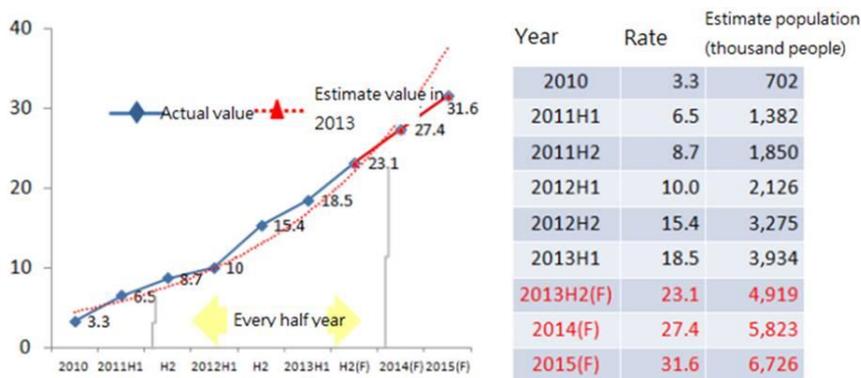
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**Fig. 1: 2013 Chinese Taipei's estimated mobile population**  
 Comments: Survey Period March 21, 2013 – May 8, 2013; a total of 970 valid samples  
 Source: FIND, 2013



**Fig. 2: The tendency of smartphone penetration rate**  
 Comments: Survey Period March 21, 2013 – May 8, 2013; a total of 970 valid samples  
 Source: FIND, 2014

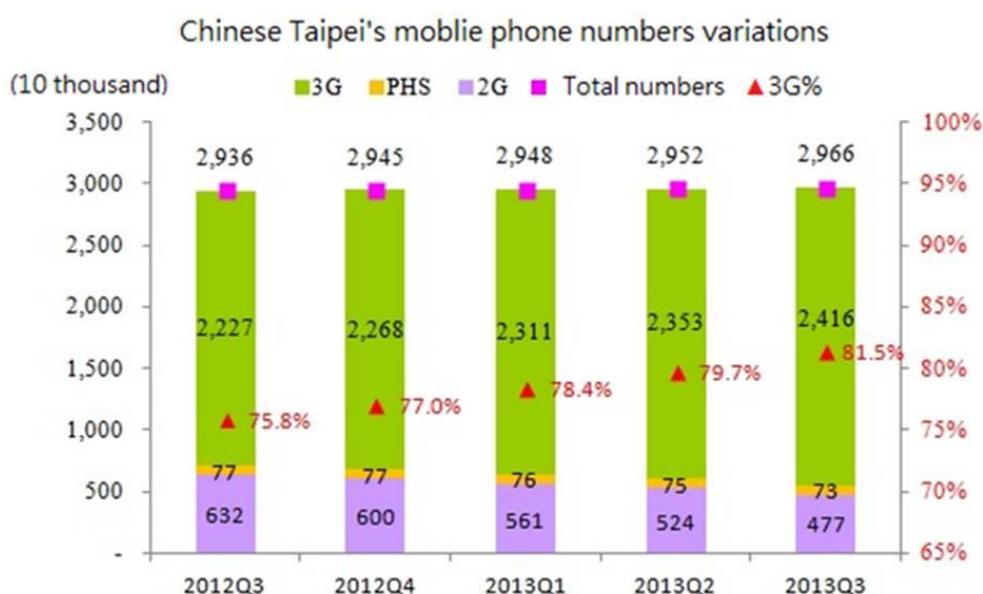


**Fig. 3: The tendency of tablet PC penetration rate**  
 Comments: Survey Period March 21, 2013 – May 8, 2013; a total of 970 valid samples  
 Source: FIND, 2014



### 1.2.2 Observations of Chinese Taipei's mobile network

The results of an investigation conducted by the NCC (National Communications Commission) showed that the number of mobile phones in the 3rd quarter of 2013 increased 0.144 million, and the total number of mobile services is 29.66 million. Therefore, for every 100 people, there are 126.99 mobile phone numbers (refer to Figure 4 for details).



**Fig. 4: Chinese Taipei's mobile phone numbers variations**

Source: NCC (2013)  
 Integration: FIND, 2013

Of the 29.66 million mobile phone numbers, the number of 3G service users is 24.16 million, increasing 0.632 million users from the previous quarter, with a percentage of 81.5%. On the other hand, the number of 2G service users is 4.77 million, decreasing 0.476 million users from the previous quarter, with a percentage of 16.1% (refer to Figure 5 for details).

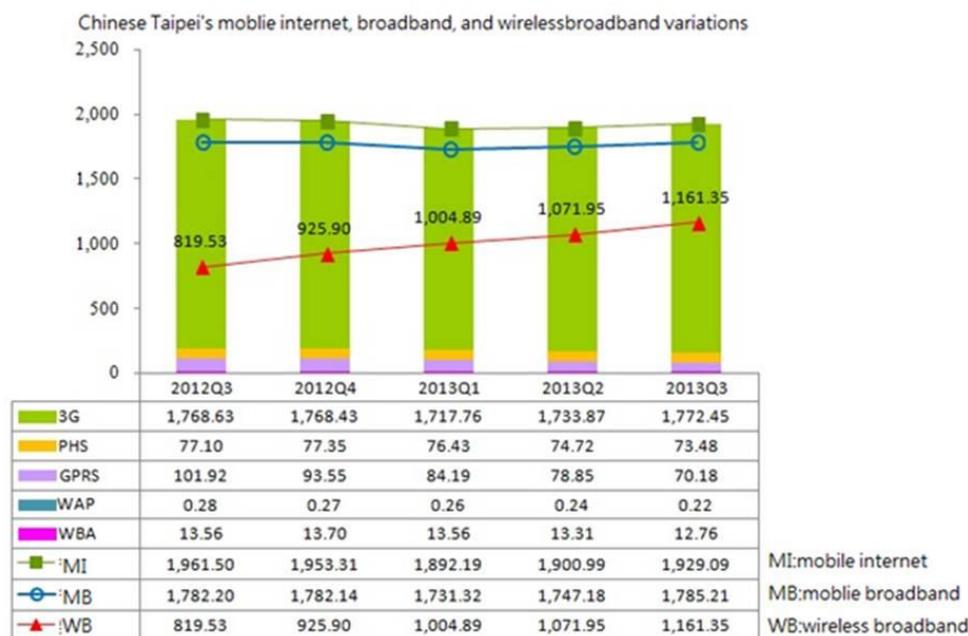


Fig. 5: Chinese Taipei's mobile internet, broadband, and wireless broadband variations

Source: NCC (2013)  
Integration: FIND, 2013

Chinese Taipei's number of mobile internet<sup>1</sup> users in the 3rd quarter of 2013 is 10.2 million, and the percentage of mobile broadband<sup>2</sup> usage increased to 92.5% (about 17.85 million users).

The percentage of active 3G users who have unlocked their mobile service is increasing. Although 3G subscriptions have increased to 17.72 million during the 3rd quarter in 2013 (growing 2.2% from the previous quarter), the percentage of unlocking 3G services has decreased to 73.4%. The subscription number of 3G was 11.49 million in September 2013 while the subscription number of wireless broadband was 11.61 million. In other words, for every 100 users, there are 49.72 wireless<sup>3</sup> broadband subscriptions.

### 1.2.3 Bandwidth of external network connectivity

According to a survey done by the Taiwan Network Information Center (TWNIC), the total bandwidth of Chinese Taipei's external connectivity through June 2014 was 1,413,408 Mbps, increasing 102,009 Mbps from the previous quarter, with a growth rate of 7.78%. The top three external ISPs are Hinet (748,037 Mbps), TFN (155,355 Mbps), and TWGATE (138,715 Mbps). The top 10 internal ISPs are TFN, NCIC,

<sup>1</sup> Mobile internet accounts include the mobile service account that is unlocked and the WBA(WiMAX) account. The mobile service account that is unlocked included WAP, GPRS, 3G, and PHS.

<sup>2</sup> The mobile broadband subscriptions include unlocked 3G service and WBA(WiMAX) subscriptions.

<sup>3</sup> The wireless broadband subscriptions include WiMAX subscriptions, active 3G accounts and data card.



Hinet, TWIX, CNS-KBT, Ke-ing, FET, TANet, EBIX, and Taiwanmobile.

**Table 2. Chinese Taipei's external bandwidth (Mbps)**

No.	Country	2013/9	2013/12	2014/3	2014/6	Percentage	Growth rate
1	US	640,674	642,396	699,204	778,820	55.10%	11.39%
2	HK	167,432	183,064	199,397	201,885	14.28%	1.25%
3	JP	161,951	189,960	190,872	200,924	14.22%	5.27%
4	CN	137,458	137,458	150,993	160,945	11.39%	6.59%
5	SG	23,493	23,493	33,446	33,446	2.37%	0.00%
6	KR	14,463	14,463	14,463	14,463	1.02%	0.00%
7	PH	10,311	10,311	10,311	10,311	0.73%	0.00%
8	MY	6,210	6,210	6,210	6,110	0.43%	-1.61%
9	GB	2,200	2,200	2,200	2,200	0.16%	0.00%
10	DE	1,000	1,000	1,000	1,000	0.07%	0.00%
11	NL	722	722	722	722	0.05%	0.00%
12	TH	556	1,800	1,956	1,956	0.14%	0.00%
13	VN	365	365	365	365	0.03%	0.00%
14	SA	156	156	156	156	0.01%	0.00%
15	MO	45	45	45	45	0.00%	0.00%
16	AU	45	45	45	45	0.00%	0.00%
17	ID	16	16	16	16	0.00%	0.00%
	<b>Total</b>	1,167,097	1,213,704	1,311,399	1,413,408	100.00%	7.78%

Source: TWNIC (2014)

#### 1.2.4 Status of Chinese Taipei's 4G

According to the research of International Data Corporation (IDC), 4G mobile users



will exceed 1 million by the end of 2014. Furthermore, IDC has also predicted that 2014's ARPU will be 10% higher, and most people will first consider the cost range between 1,000 NTD and 2,000 NTD. The most popular cost range will be between 1,100 NTD and 1,400 NTD.

Chinese Taipei's 4G mobile broadband began operation in May 2014, but according to a report conducted by the Industrial Technology Research Institute (2012), once FDD LTE began being provided in 2010, there have been lots of ways to appeal to users, such as smartphones, preferential prices, and video service. Verizon Wireless in the U.S. spent a year increasing the LTE user's percentage to 9.1%. Thus, with the past experience of the U.S.'s 4G and Chinese Taipei's 3G, the ITRI predicts that Chinese Taipei will need at least four years to make 4G popular.

### **1.3 Status of e-commerce development**

The growth of the online shopping population was driven by the E-Commerce (EC) enabling environment with the surge of free wireless internet services and cheaper mobile internet tariffs. The survey indicated that of those accessing internet with wireless internet services, 36.95% said that they had free service and 13.66% said that they have to pay NT\$751-1,000 per month. Of those using mobile phones to access the internet, 24.82% said that they have to pay an online service charge of NT\$751-1,000 per month while 4.67% pay up to NT\$1,250 per month. Therefore, the survey indicated that 59.62% of those over the age of 12, equivalent to 15.94 million people, had an online shopping experience with a one-time shopping value of NT\$2,000-5,000 constituting the majority of those instances.

According to the data of the Chinese Non-store Commerce Association, Chinese Taipei's e-commerce scope has reached 700 billion NTD with a 20% annual growth rate. The Market Intelligence & Consulting Institute says that the e-commerce value of Chinese Taipei has increased from 660.5 billion NTD to 767.3 billion NTD in just one year (growth rate of 16%).

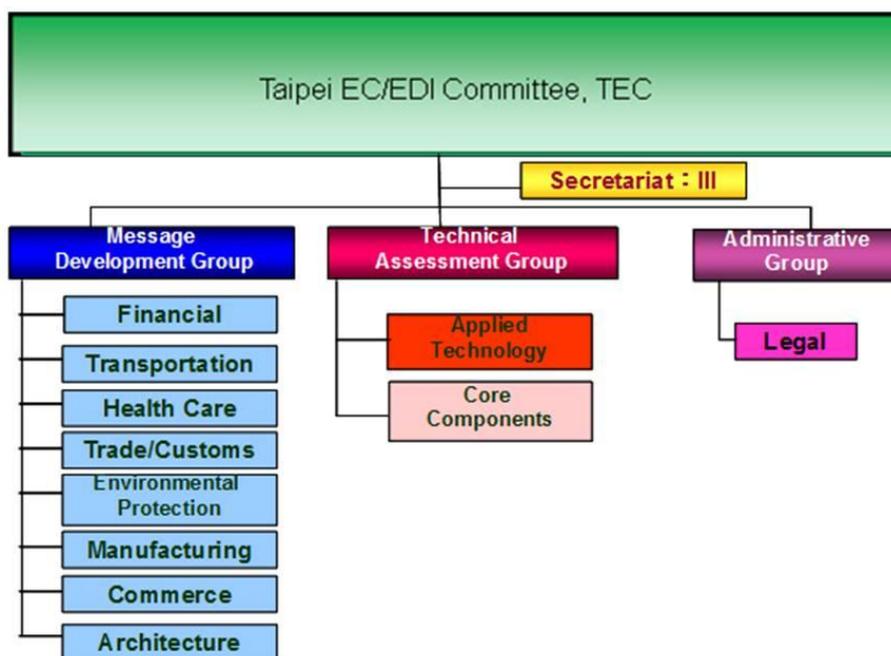
### **1.4 Taipei EC/EDI committee**

#### **1.4.1 Introduction**

The Taipei EDIFACT Committee (TEC) was established within the Central Standards Bureau of the Ministry of Economic Affairs in 1992 to promote national standards for electronic data interchange and to participate in the international standardization of organizations and activities. In 1999, the responsibility for the TEC was shifted to the Bureau of Standards, Metrology and Inspection of the Ministry of Economic Affairs. Since EDI applications had extended into e-Commerce, the committee was renamed the Taipei EC/EDI Committee in 2000, but continued to use the same acronym that it always had: TEC.

#### **1.4.2 Constitution**

The Director General of the Bureau of Standards, Metrology and Inspection chairs the Taipei EC/EDI Committee. The current structure of the TEC is shown in Figure 6.



**Fig. 6: Current structure of TEC**

Source: Taipei EC/EDI Committee (TEC) Secretariat

According to UN/CEFACT 2012 Core Component Library version D12A requirements, Chinese Taipei has completed the core components of EC/trade facilitation, including domestic trade facilitation and technical standards of transportation, and has incorporated them into the Chinese version in order to reduce trade costs and improve the competitiveness of enterprises. The Core Component Library Technical Standards in Chinese have been compiled as follows:

Version 1: CCL 06A, passed in May 2006

Version 2: CCL 08A, passed in October 2009

Version 3: CCL 09B, passed in September 2010

Version 4: CCL 10A, passed in August 2011

Version 5: CCL 11A, passed in June 2012

Version 6: CCL 12A, passed in September 2013



## SECTION II – Edifact/ebxml/xml based standards development

### 2.1 The e-invoice project (provided by the Fiscal Information Agency, Ministry of Finance)

The E-invoice Project is an important part of promoting e-government; moreover, it serves as the last piece of the puzzle for e-industry acceleration. The e-invoice has inherited Government Uniform Invoices with multiple functions, such as commercial transaction certificates, accounting documents and tax certificates, all of which influence the government, business entities, non-profit organizations and the general public. In order to expand the benefits of the e-invoice, the Fiscal Information Agency has developed the Application Programming Interface (API) for the E-invoice Integrated Service Platform. This project not only implements the concept of open government data and crowd creativity, but also provides government agencies, enterprises and citizens the opportunity to create more innovative, convenient and value-added services.

There are 11 APIs provided by the E-invoice Integrated Service Platform; furthermore, applicants need to apply for certification to develop applications related to the e-invoice. The APIs offered for applicants are shown in Table 3.

**Table 3. API list for the e-invoice integrated service platform**

Item of API	Function Description
Query the list of invoice winning numbers	Query invoice lottery prize and winning number bimonthly.
Query invoice header information	Check invoice header information by 2D Bar Code (QR Code) or 1D Bar Code on paper e-invoice, which includes the number, date, vendor name and status of the e-invoice.
Query invoice details	Check invoice details by 2D Bar Code (QR Code) or 1D Bar Code on paper e-invoice, which includes item, amount and price of transaction.
Query donation code	Check the information of a registered donation code, which includes uniform number, donation code, name and abbreviation of the social welfare organization.
Query e-invoice header information within carrier	Check e-invoice header information within carrier, which includes the number, date, vendor name and status of the e-invoice.
Query e-invoice details within carrier	Check e-invoice details within carrier.
e-invoice donated via carrier	Donate e-invoice within carrier to specific social welfare organizations (before drawing the winning numbers).
Cell phone barcode registration	Provide cell phone barcode registration service.
Join multiple carriers to cell phone barcode	Provide the function that joins multiple carriers to a cell phone barcode through carrier code and verification code.



Item of API	Function Description
Link up cell phone barcode with financial account	Provide financial account setup service.
Donate e-invoice via cell phone barcode	Check the cell phone barcode and other carriers joined to it; furthermore, the e-invoice can be donated by cell phone barcode as well.

Third-party service providers are able to develop related application services according to the APIs provided by the E-invoice Integrated Service Platform. Consumers can access various e-invoice information and services by APP (for mobile devices) or KIOSK (set up in more than 8,000 convenience stores in Chinese Taipei), which significantly increases convenience to the e-invoice users.



Fig. 8: Open service architecture

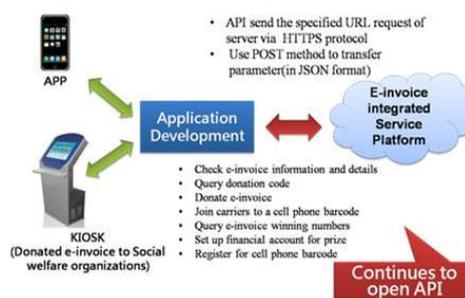


Fig. 9: APP and KIOSK API usage situation

The development of APIs for the E-invoice Integrated Service Platform and derived services from it have made Chinese Taipei the leading country in this field, which creates plenty of innovative measures in the e-invoice area: consolidating B2B, B2C and B2G services to a public cloud service, drawing e-invoices by carriers, checking winning numbers and transferring prizes automatically, and providing innovative 1D Bar Codes, e-invoice donations and e-audit models.

The APIs play the key role in the E-invoice Integrated Service Platform in upstream industries (e.g., e-invoice value-added service providers), midstream industries (e.g., software providers and hardware manufacturers) and downstream industries (e.g., information services providers and carrier manufacturers). According to the statistics of the Institute for Information Industry (III), the annual consolidated benefits of the e-invoice value chain tops 35 billion NTD; also, it has created 69,490 jobs opportunities. This indicates that e-invoice and its API services have significantly and positively impacted the government, industry and the public in Chinese Taipei. Open data services provide the government, business entities, consumers and academic institutions opportunities to develop more value-added applications, which are expected not only to bring more information application services and industrial value but also to achieve the goal of creating intelligent life.

**2.2 New Taipei City traffic information service (provided by the Transportation Department, New Taipei City Government)**

Beginning in 2003, New Taipei City has been implementing the construction of the Intelligent Transportation Infrastructure.

We provide the public various types of traffic information inquiry services, such as road performance, bus information and parking lot status, via the construction of roadside detection equipment, video surveillance systems, bus arrival inquiries, and real-time parking information.

**2.2.1 Standard of information dissemination**

New Taipei City's intelligent traffic control system collects data, including road performance, real-time traffic images and travel time estimation. Through the results of data collection, we provide public inquiries by web page. Meanwhile, in order to facilitate the application, New Taipei City's Department of Transportation release the information as XML provides the interfacing units, as academic research, value-added applications and innovation services development.

In 2011, the Ministry of Transportation established a real-time traffic information dissemination XML standard format in order to efficiently integrate the various units of the information format.

It is hoped that by the unity of form, each unit will receive real-time traffic information with a unified standard, thus reducing the costs of development and maintenance. The architecture of this program is shown in Figure 10. The system includes road information, vehicle detectors, CCTV, changeable message sign, automatic vehicle identification system, etc. New Taipei City released a comprehensive updated data format following the standard format for the Transportation Ministry to provide interfacing for other units applications.

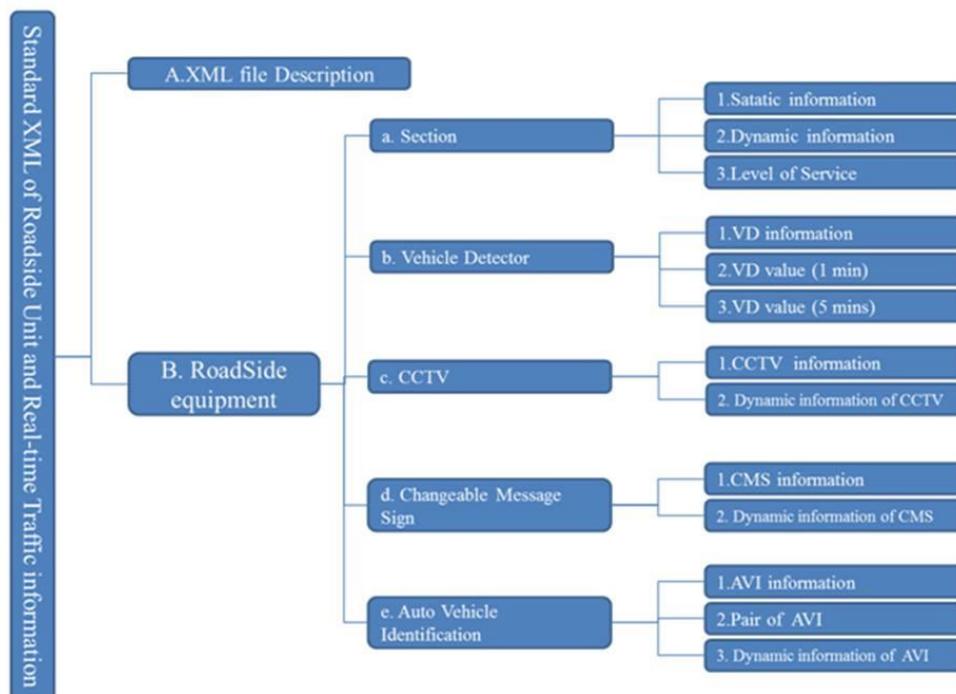


Fig. 10: Roadside unit and real-time traffic format architecture diagram

### 2.3 Environmental data integration project (provided by the Environmental Protection Administration, Executive Yuan)

Chinese Taipei's Environmental Protection Administration has been developing a number of environment-related information systems for environmental data integration, exchange and sharing. Some achievements of the past year have been summarized below:

#### 2.3.1 Central data exchange system of TEPA

The system adopted XML as a standard format, which made the data exchange more efficient and consistent. So far, this system has released 224 data sets; information publishing units and recipients total almost 54, including the Central Weather Bureau, the Water Resources Agency and the Soil and Water Conservation Bureau. The number of transactions is about 70,000 records per month.

#### 2.3.2 Environmental information sharing service

To facilitate innovation in disseminating environmental data, the TEPA established an open-data system (<http://opendata.epa.gov.tw>). Data are released to the system via the Central Data Exchange System mentioned above.



The website provides access to official raw data; all data is well-formed in XML, JSON, and CSV formats. The website also provides a machine-to-machine function to retrieve data. Various open data include the national hourly air pollution index (PSI), hourly UV, monthly water quality data, pollutant facilities baseline data, etc. Currently, the system has cumulated over 75 datasets with more than 630,000 records, and website data downloads exceed 1 million.

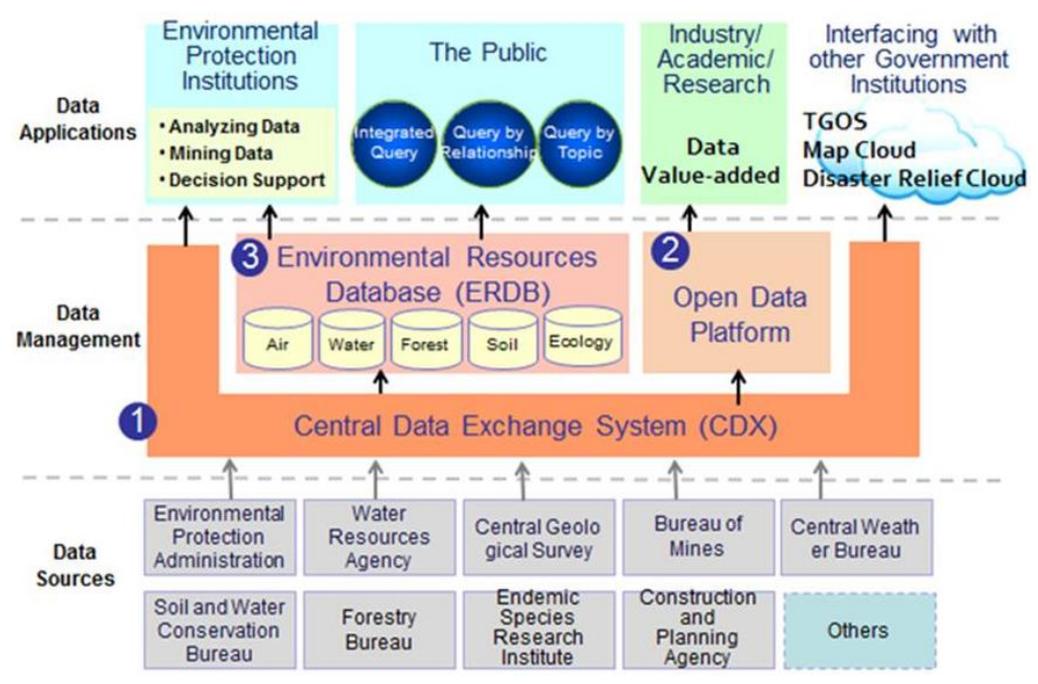


Fig. 11: Architecture of environmental data integration project



## **SECTION III – E-readiness and e-application – e-government / e-business related project updates**

### **3.1 Intelligent ecology project (provided by the Forestry Bureau, Council of Agriculture, Executive Yuan)**

With the aim of promoting the Intelligent Ecology Project, the Forestry Bureau, Chinese Taipei Forestry Research Institute and Endemic Species Research Institute of the Council of Agriculture, Executive Yuan, have collaborated with the Construction and Planning Agency of the Ministry of the Interior in extending the application scope of the Ecological Information Service System (EISS). The three major promotional focuses of the project are: tourism, education, and community interaction. The general public has also been provided a range of methods to access the information available on the EISS. The objective of the four-year Intelligent Ecology Project, which was launched in 2013, is to progressively elevate the visibility and comprehensiveness of Chinese Taipei's ecological resources. Implementation results of each of the three major promotional focuses are as follows:

#### **3.1.1 Tourism**

The promotion of forest ecotourism involves regional and local communities and other relevant groups joining forces. Collaboration is based on both profit and non-profit oriented models in the design and planning of innovative and themed forest ecological tours, as well as the cooperative development and implementation of a comprehensive forest ecotourism information system that inspires and encourages public participation in ecotourism. The Forestry Bureau has integrated information based on a variety of wide-ranging themes and requirements, including local culture, local industry, and scenic resources, and has delineated 45 unique tour routes for the Forest Ecotourism Online Platform. The objective of this project is not only to provide an in-depth introduction to Chinese Taipei's forest ecotourism resources, but also to revive local industries, such as Puli's Taomi Eco-village and Chiayi's Xingang Bantou Village, by nurturing regional tourism and attracting visitors through the promotion of local stores and specialties. Those interested can access a wealth of information on the Internet whether they are looking to join a package tour or planning a unique travel experience of their own.



Fig. 12: Forest ecotourism online platform

To augment the National Parks of Chinese Taipei Open Data System and enrich the value-added application of ecological resources within Chinese Taipei's National Parks, the Construction and Planning Agency has been expanding the Open Data System. This project covers 32 items under seven major themes, and includes the integration of over 10,000 data files and 11 new web-services, such as information on hiking trails, cycling routes and tour routes, travel information, recreational guidelines, and history and culture. A range of applications have been utilized to develop multimedia content through the file conversion of videos of scenic sites and environmental features, so that visitors to the Forest Ecotourism Online Platform can also experience the beauty of Chinese Taipei's national parks on their mobile devices.



Fig. 13: National parks of Chinese Taipei open data system

### 3.1.2 Education

To facilitate the sharing and dissemination of popular science, the Forestry Bureau has commissioned the Academia Sinica to develop a highly accurate, globally-connected database that provides free information to the general public. The purpose of this database is to propagate scientific knowledge on bio-diversity, encourage domestic and international sharing of technical information, and display the uniqueness and diversity of Taiwan's ecosystems. The Chinese Taipei Encyclopedia of Life is a platform designed specifically for popular education and learning and comprises almost 13,000 textual and graphic descriptions, including 4,500 entries on vascular plants, 2,750 fish, 133 amphibians, 561 birds, 97 mammals, 2,900 insects, 200 types of coral, 130 spiders, and another 1,800 miscellaneous species.

The Endemic Species Research and Conservation Institute's Taiwan Biodiversity Network is an open data system offering information on Chinese Taipei's biodiversity. Individuals, civic groups and government agencies are all welcome to upload information and share the results of their biodiversity investigations. The Taiwan Biodiversity Network encourages public participation in the fast and efficient provision of comprehensive, highly accurate biodiversity data for use in the practice of biological conservation. Investigative data on the Taiwan Biodiversity Network is now provided by ten associated organizations and agencies. Over 420,000 entries on 54,000 species can be accessed via the database.

2014 AFACT Year Book  
Asia Pacific Council for Trade Facilitation and Electronic Business



Fig. 14: Chinese Taipei encyclopedia of life and biodiversity network

In order to apply ecological sensing data to academic research, impact analysis of environmental change, and promote ecological conservation, education and information sharing at international academic events, the Taiwan Forestry Research Institute has implemented the Ecological and Biodiversity Sensor Network. This network is an open data system that provides both real-time and historical data derived from long-term sensor detection. Targeted areas include the Taipei Botanical Garden, Liuguei Wetlands, Shan-ping Forest Ecological Garden, Lienhuachih Experimental Area, and other experimental forests and herbal gardens. The network showcases 2,107 high-resolution photographs of lotus ponds, calendar and climate information on 55 kinds of flowers along with 178 pictures of their blooms, 60 audio tracks of frog sounds, and over 25,000 data entries on Lienhuachih frog soundscapes. All information is available to research staff and the general public in open data format.



Fig. 15: The ecological sensor network

### 3.1.3 Community interaction

The Ecological Navigator Web Community, created by the Forestry Bureau, has facilitated the establishment of 47 NGO online communities in the areas of ecotourism, nature conservation, environmental education and even local communities. The aim of these community groups is to strengthen regional tourism by sharing unique local events, flora and fauna, landscapes, cultures, and industries. Over 100 ecological navigators have established individual fan clubs within the web community, thus creating an online environment where individuals interested in ecological issues can participate in lively discussions and share personal experiences. It is the joint wish of all participants to contribute to the promotion of ecotourism in Chinese Taipei and the sustainable development of its environment.

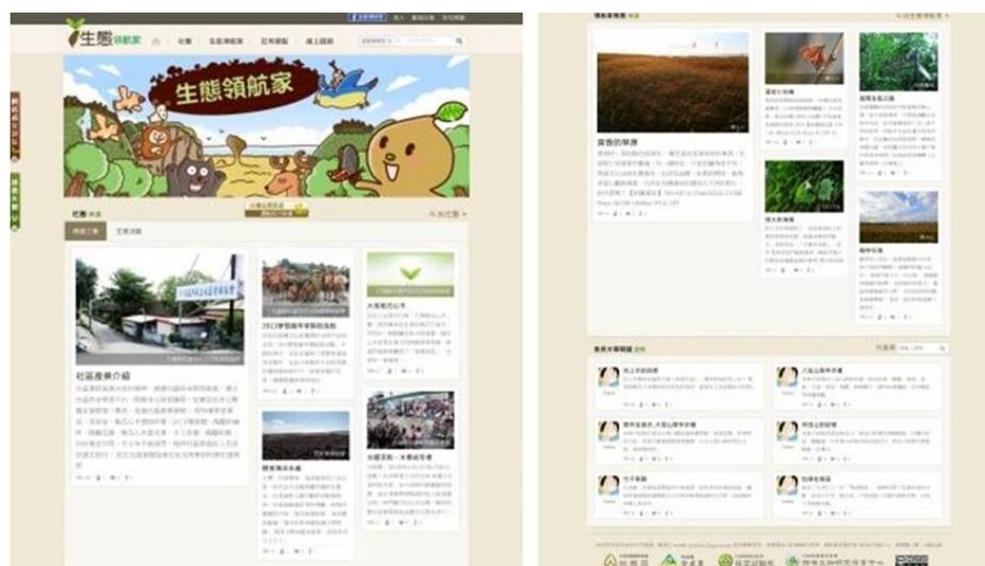


Fig. 16: The ecological navigator web community



Table 4. Intelligent ecology project performance review

Project themes	Results
Tourism	<ul style="list-style-type: none"><li>○ Websites: Forest Ecotourism Online Platform, National Parks of Chinese Taipei Open Data System</li><li>○ Mobile apps: Travel in Chinese Taipei Forests!, e-Trail let's go, National Parks mobile guide, National Parks of Chinese Taipei</li></ul>
Education	<ul style="list-style-type: none"><li>○ Websites: Chinese Taipei Encyclopedia of Life, Chinese Taipei Biodiversity Network, Ecological Sensor Network, Forest Recreational Digital Archives</li><li>○ Mobile apps: Species Investigators, i35 i-Biology</li></ul>
Community interaction	<ul style="list-style-type: none"><li>○ Websites: Ecological Navigator Web Community, i35 Community Network</li></ul>

### 3.2 The development of traffic cloud infrastructures for information services and applications (provided by the Ministry of Transportation and Communications)

The Ministry of Transportation and Communications (MOTC) is responsible for the operational safety and efficiency of traffic and transportation systems. New technology is constantly emerging in society today to greatly improve our lives.

Since 2003, in order to improve the entire traffic management network and provide efficient and convenient real-time traffic information services, the MOTC has been advancing the development of the Intelligent Transportation Systems (ITS), constructing transportation infrastructure and traffic management facilities and using information and communication technologies.

The construction and maintenance of large numbers of traditional fixed vehicle detectors (VD) is financially inefficient. In order to use the government investment to obtain the maximum benefit and achieve the above objectives, the MOTC has initiated a four-year project, "Traffic Information Cloud Project - System Establishment and Operation Outsourcing Service (2012-2015)".

Based on the present Intelligent Transportation Systems, the project integrates information from VD, GPS-Based Vehicle Probes (GVP), ETC-Based Vehicle Probes (EVP), and Cellular-Based Vehicle Probes (CVP), as well as through other traffic information detection techniques.

Correspondingly, cloud computing has been applied to attain quick resource deployment, greater capability and high stability. Figure 17 shows a detailed picture of real-time traffic information services. The traffic information cloud system's architecture is shown in Figure 18.



Fig. 17: Real-time traffic information services

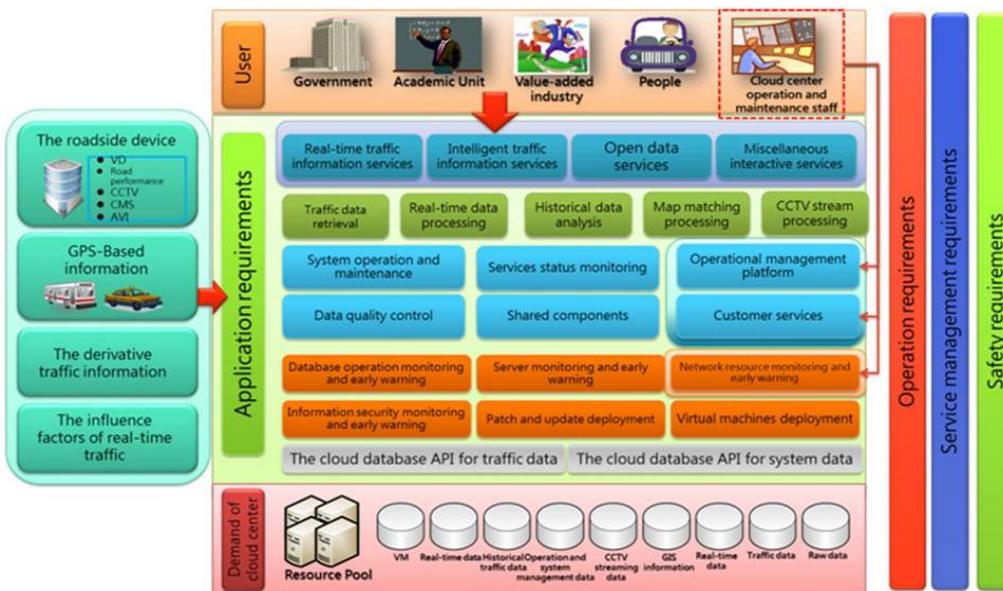


Fig.18 Traffic information cloud system architecture

We expect to re-engineer traffic information services via cloud computing technology. The goals and objectives for traffic information services are shown in Figure 19.

The on-going project was initiated to establish seamless and high-quality traffic information services that are “convenient, intelligent, safe, and efficient”.

The project’s development will move domestic real-time traffic information services into the next generation.



Fig.19: The vision, goals, and objectives of traffic information services

### 3.3 Cloud-based traffic control system (provided by the Ministry of Transportation and Communications)

In this project, cloud computing technology is being utilized to tackle regional traffic control problems.

Cloud computing technology allows for flexibility and quick connection to information technology (IT) resources.

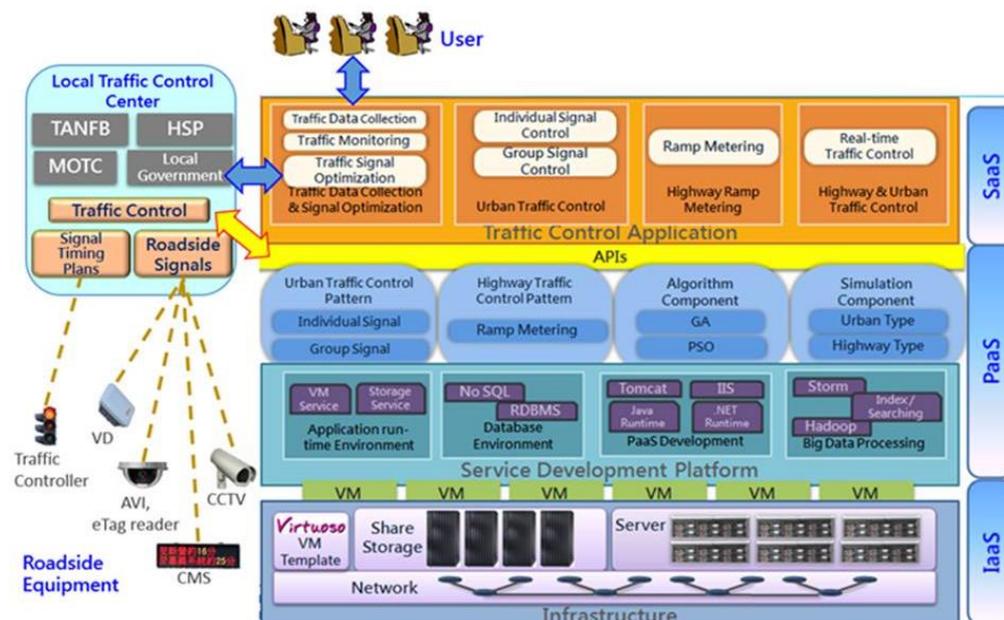
Therefore, the development of a cloud platform for a regional traffic control system can solve the problems of a cross-traffic control unit system, as well as establish and maintain software and hardware of existing medium and small-sized urban traffic control centers.

For demonstration purposes, the area of “National Highway No. 1 northbound Jubei exit ramp and the nearby main roads” was chosen. That area is also a milestone in the implementation of innovative technology.

Some important results and benefits of this project include: (1) establishing the proof-of-concept prototype of a cloud-based regional traffic control system; (2) building an integrated freeway and arterial traffic control system for National Highway No. 1 northbound Jubei exit ramp and improving performance in this area; (3) decreasing the building and maintenance cost of the local traffic control system; (4) enhancing



the collaboration of different traffic control authorities; and (5) strengthening the technology of a traffic control system combined with cloud computing and cultivating related talents.



**Fig. 20: Architecture of cloud-based traffic control**

Among the aforementioned benefits, establishing the proof-of-concept prototype of a cloud-based regional traffic control system and building an integrated freeway and arterial traffic control system for National Highway No. 1 northbound Jubei exit ramp and improving traffic performance in this area are the most important.

Proof-of-concept of the Cloud-based Traffic Control System includes the following items:

(1) Roadside information collection and traffic monitoring

Connection with local control centers to collect and verify real-time traffic information, including VD (Vehicle Detectors), CCTV, and CMS.

The system provides roadside equipment information, traffic anomaly detection, and an equipment malfunction alarm mechanism.

(2) Traffic Signal Optimization

System users, via a web-based UI, can setup the parameters of simulation for optimal traffic light timing and then obtain the optimal signal timing plans, a system which allows the user to know the total traffic throughput in simulation.

This system can simulate different scenarios with dynamic and fast deployment operation resources and reduces costs related to the duplication of hardware and



software and operational maintenance.

Regarding building an integrated freeway and arterial traffic control system for National Highway No. 1 northbound Jubei exit ramp and improving performance of this area, this project compared traffic performance before and after implementation in order to show the improvement.

The project mainly compared the following three MOEs (Measure of Effectiveness):

1. The travel time saved on the critical path
2. The change of speed in the freeway's mainline traffic
3. The throughput of study areas not including the critical path

Table 5 shows that this project has significantly improved travel time on the critical path.

**Table 5. The travel time saving on the critical path 1**

State	Workday 1		Workday 2		Workday 3		Workday 4		Workday 5	
	Before	After								
No. of samples	3,829	4,370	3,779	4,000	3,813	4,432	4,029	4,136	2,742	3,449
Average travel time(s)	419	362	408	396	472	388	380	402	619	461
The improvement % from the before case	13.6%		3.1%		17.7%		16.2%		25.5%	

Except for the 3.1% on Weekday 2, all the other Weekdays saw more than a 10% improvement, with Weekday 5 even seeing an improvement of 25%.

Based on the information above, this project proved that the prototype of a cloud-based regional traffic control system can be successful, using Jubei to Hsinchu Science Park as an example.

The change of speed of traffic on the freeway also saw significant improvement. For the latest MOE, Jubei and the Hsinchu Science Park increased by 2,000 and 1,000 veh, respectively, during rush hour. There was an obvious improvement in MOE of traffic within this project.

This project can be an example for other problems, such as improving regular traffic



congestion on the freeway's mainline and other local arterial lines.

### **3.4 Citizen participation, agency collaboration – one-stop e-service (provided by the National Development Council, Executive Yuan)**

Since Chinese Taipei launched its e-government program in 1998, we have already successfully completed the first phase of basic information and communications deployment, the roll-out of online government services in the second phase, and the integration and interoperability of government services in the third phase. Now, during the fourth phase, we are emphasizing proactive, focused, one-stop e-government services even better tailored to the public's needs. Throughout each phase, e-government programs have broadened and deepened citizens' online access to government services; as e-government services gradually reach their maximum extent in the future, our vision of "service without boundaries, providing a better life to all citizens" will be realized.

#### **3.4.1 Current e-gov program**

##### **Service without boundaries, providing a better life to all citizens**

In the face of the rapid development of information technology and ongoing changes in the social environment, the next-phase e-government program (2012-2016) will further employ innovative methods to integrate one-stop public services with a user-centered perspective. In keeping with our vision of "service without boundaries, providing a better life to all citizens," we will focus on making one-stop e-government services even better and strive to achieve the following three major goals: "establishing a green energy sharing environment," "providing superior integrated services," and "promoting equal access and participation."

Our core philosophy for government service development can be summed up by the word "DNA," in which D (devices) signifies the development of services for mobile devices, N (networks) signifies the use of wireless broadband networks to develop more convenient services, and A (applications) signifies innovative services making use of Web 2.0 social networking to offer innovative services even more effectively to meet the public's needs. We provide proactive services closely tailored to users' needs, as well as services aimed at particular segments of society. We are further considering the beneficiary's perspective when coordinating and integrating interagency services as we continue to develop more one-stop services.

Government-wide, we will enhance operating efficiency; for citizens, we will emphasize the three areas of public service quality, social caring, and fair participation. We have consequently drawn up plans for the six major measures of the Phase IV E-Government Program (2012-2016), which includes government cloud application services, expansion of core databases, proactive one-stop services, mobile e-government, integrated social networking, and e-services at home.



Responding to the development of mobile technology and the fact that the public uses mobile devices as one of their main channels for accessing government information and services, we plan to establish a technical infrastructure and standards for mobile e-government services. We will provide a unified mobile portal to help citizens using mobile devices find and access information and services dispersed among various agencies, ensuring that the public can enjoy universal government services.

- **Integrated Social Networking**

We will make maximum use of Web 2.0 application services to integrate private sector resources, pool citizens' collective knowledge and community strengths, and jointly plan e-government services that fit public needs even better.

- **E-Services at Home**

We will provide underprivileged groups such as the elderly, recent immigrants, and the mobility-impaired with mobile and integrated e-government services at home by joining forces with front-line civil servants (such as household registration officials, surveyors, village and borough officers, social workers, nurses and policemen) and information technology advocacy volunteers (such as retired civil servants). Until 2013, 7 counties and cities administrations and 29 basic level units can provide 37 services at home. And the result will be the follow-up central and local governments' standard.

### **3.4.2 E-government achievements**

#### **3.4.2.1 Public support**

In a recent survey, approximately 78% of respondents were aware that the government provides many online services, and more than 50% had downloaded application forms or other documents from government agency websites. Public satisfaction with the implementation of e-government services reached a solid 67.4%.

The e-government portal (<http://www.gov.tw>) provides three major services: information queries, online applications, and public communication with the government. The portal provides interfaces to more than 90 agency application gateways offering in excess of 4,840 online application services, and special topical areas offer focused services to different categories of citizens. Public satisfaction with services provided by the e-government portal attained 86.5%.

#### **3.4.2.2 Public-private partnership**

- **24-hour e-service hotspots**

Chinese Taipei's more than 9,600 convenience stores provide one store for less than every 2,500 residents – which is the world's highest density of such stores. Located throughout both urban and rural areas and providing 24-hour service, convenience stores provide the public with handy locations for buying everyday necessities and handling miscellaneous business. The government has been working closely with convenience stores, enabling them to offer many convenient services to meet



citizens' needs. This public & private partnership (PPP) strategy has made these stores an important channel for the delivery of e-government services. Due to their highly efficient information, logistics, and cash flow services, in addition to selling ordinary products, convenience stores now also provide a place for making copies, consigning shipments, ordering checks, and paying fees (such as utility fees, insurance premiums, parking tickets, credit card payments, etc.). Furthermore, convenience stores' Multimedia Kiosks allow users to query government information, pay taxes and fees, renew their driver's licenses, and obtain official transcripts. By giving the public handy 24-hour access to government services, convenience stores are attracting even more potential customers and creating a win-win-win cooperative model that benefits citizens, store operators, and the government.

■ **Mobile e-government**

In order to coordinate the trends of global mobilization, the government has developed over 300 mobile applications. These applications are integrated in the government portal website (<http://www.gov.tw>) and mainly focus on tourism, transportation, and public information. For the sake of increasing the mobile service benefits of government organizations, open data have the highest priority.

■ **iTaiwan government indoor public area Wi-Fi access**

To satisfy citizens' internet needs, Chinese Taipei has been providing indoor public free Wi-Fi since Oct. 2011. After registering, citizens can use the free indoor Wi-Fi in over 5,000 hotspots, which are located at popular tourism spots, transportation points, and so on.

From May 2013, iTaiwan has been open for foreign travelers and has already earned the approval of some press media (The Telegraph, and CNN).



## **SECTION IV – AFACT repository of single window or e-customs**

### **4.1 Customs-Port-Trade (CPT) single window (provided by the Customs Administration, Ministry of Finance)**

The “CPT Single Window” is aimed principally at integrating three major information systems, i.e. the “Customs Clearance System” (Ministry of Finance), “Maritime Transport Network” (Ministry of Transportation and Communications) and “Facile Trade Net” (Ministry of Economic Affairs), thus harmonizing import/export messages, streamlining import/export operation processes, providing cross-agency facilitated and integrated services and cross-border information exchange services, and offering a high-quality “One-stop Service” operating environment. Planning started in 2010, and then the program was implemented in 2011 and officially launched on August 19, 2013.

#### **4.1.1 Overall service framework**

The “CPT Single Window” was implemented by following standards and recommendations related to WCO and UN/CEFACT and, with the advantages of internationalization and standardization, was positioned as the entrance hub and convergence and processing centre of import/export information services of Chinese Taipei. It has connected with and integrated the systems, data and processes of the competent import/export agencies of customs, licensing, port etc. On the one hand, it provides traders with facilitated B2G services such as import/export applications, inquiries, electronic payments, etc.; on the other hand, it also offers import/export competent agencies with multiple G2G services such as cross-agency investigation, compliance checks and data exchanges. Meanwhile, via an N2N cross-border information exchange platform, it can connect with the single window systems of other economies and promote cross-border information exchanges and international cooperation (see the overall service framework in the picture below).

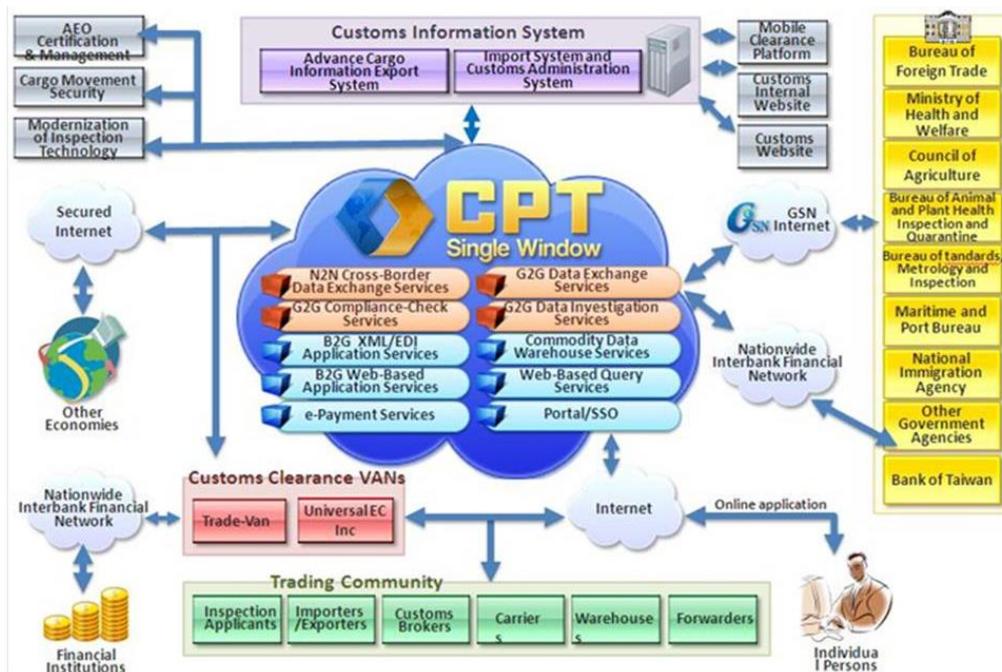


Fig. 21: “CPT single window” overall service framework

#### 4.1.2 Benefits

Implementing the “CPT Single Window” has constructed a high-quality environment of “One-stop Service”, improved import/export procedures, integrated cross-agency resources, enhanced administrative effectiveness and convenience benefits and stepped up cross-border cooperation. Its long-term promotion can support industrial development, push forward import/export environment upgrades, enhance economy and trade competitiveness, and expedite Chinese Taipei as a global trade logistics center. With respect to quantitative benefits, it is estimated to save the government budget about US \$24 million and industrial costs of about US \$28 million annually, and expected to save about US \$52 million annually in total operational costs.

#### 4.1.3 Future development

Since the “CPT Single Window” is an important factor for realizing import/export facilitation and international cooperation, the Customs Administration will be continuously in accordance with economic policies and environmental requirements to enhance single window service, expand import/export business connections and integration and strengthen cross-agency, cross-domain and cross-border cooperation. Regarding implementation strategy, we will push ahead with advancing the CPT single window in proper sequence by means of the theory “develop in stages, evolve in steps” on the following six key points:



- Increase customs, trade and port business integration
- Construct a 24-hour customs and licensing operation environment
- Establish an intelligent customs management environment of a Free Economic Pilot Zone
- Link supply chain of B2B trade logistics
- Introduce civil resources for securing sustainable development
- Develop cross-border connectivity and international cooperation.

#### **4.2 Maritime & harbor information system (provided by the Ministry of Transportation and Communications)**

As part of maritime and port system reforms, the Maritime and Port Bureau (MPB) and Taiwan International Posts Corporation (TIPC) were formed in 2012 and are continuing to develop and establish the Maritime & Harbor Information System (MHIS). In order to cooperate with the “CPT Single Window” system, MPB has been promoting the “Future Development Plan of the Maritime & Harbor Information System (2013-2016)”, which was approved by the Executive Yuan in 2013 to enhance competitiveness of Chinese Taipei’s ports.

To strengthen communication and collaboration across departments, the MPB has coordinated eight external departments, including the Department of Commerce, MOEA and the Control Yuan, to integrate MHIS with other system operations in August 2013. Furthermore, in order to use Big Data for port operation, the MPB has developed the value-added analysis function for MHIS so as to provide convenient services to the general public, as well as offer navigation supervision system services, ship certificates of inspection and survey expiration notifications. This system upgrade will help support decisions and policy formation by the MOTC. In 2014, the MPB will promote further adjustment for MHIS and other systems, such as free trade zone e-application. Furthermore, the MPB will coordinate with the Coast Guard Administration of the Executive Yuan, Customs Administration of the MOF, Centers for Disease Control and National Immigration Agency to develop the CIQS integration system for yacht activities.

The TIPC has promoted the reconstruction of Port Net for four international ports. As of July 2014, 80 interviews (consisting of users of every port and future shipping companies) have been carried out by the TIPC. The system analysis and a miniature display will be completed in September 2014, with the aim of simplifying and integrating the processes of loading/unloading, storage, declaration of dangerous items, e-pay and e-invoices. In addition, 10 meetings have been called with the Customs Administration for establishment of the Multi-nation Container Consolidation (MCC) Management System. The MCC platform will be completed in November 2014 and will provide comprehensive, simplified e-commerce services for the MCC custom process, aiming to attract more domestic and international MCC logistics operations and increase ports’ shipping volumes.

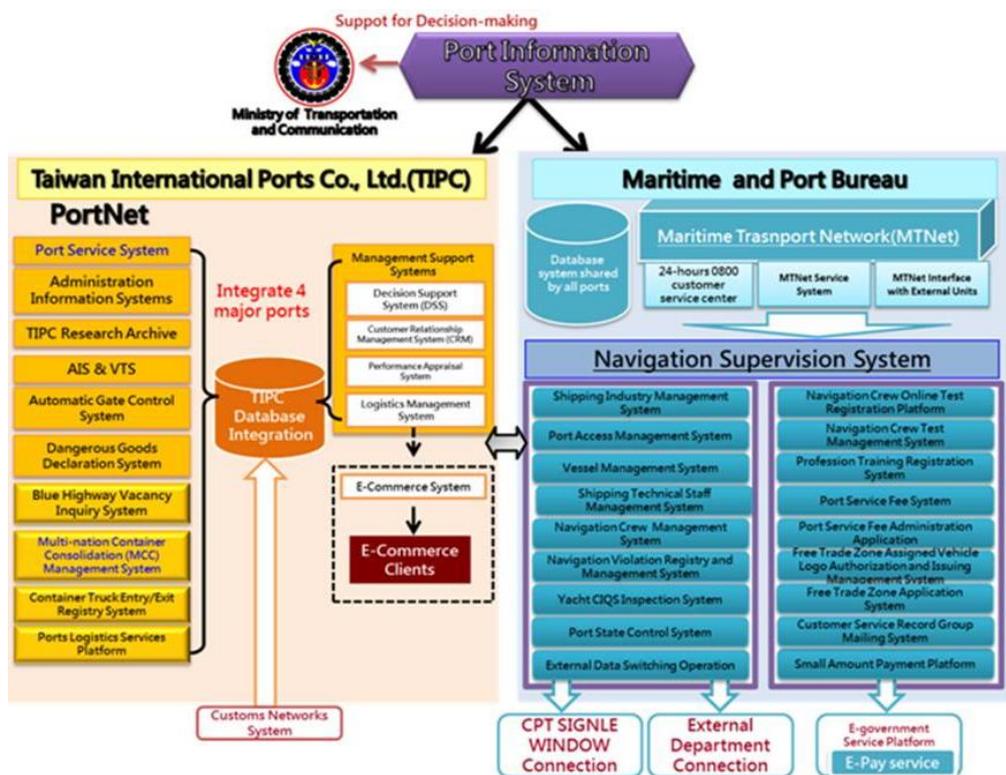


Fig. 22: Maritime & harbor information system framework

**SECTION V – Summary**

With the rise of the needs of Internet service, e-commerce is also converted to EC3.0. It not only inherits the concept of user-centered but also put more emphasis on the connection from online to offline (O2O) and offline to online. Due to the popularity of mobile device and the rapid development of wireless technology, location-based service (LBS) has become more important. With the integration of social, local and mobile, it's easier to achieve the inter-communication between online to offline, called "SoLoMo" model. Thus, click-and-mortar and crossover-application will become the important direction in the next stage for each project.



## **Member Progress Report**

### **India**

**32st AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



**eTRADE  
Department of Commerce  
Ministry of Commerce & Industry  
Government of India  
New Delhi**



## **SECTION 1 – GENERAL CONDITION UPDATE**

### **1.1 Electronic Commerce(EC)/ Electronic Data Interchange(EDI) Users**

The last two years have seen tremendous growth of e-commerce in India as compared to previous years. The recovery in the global economy has also encouraged Indian IT industry, which is on the verge of a digital revolution with key support from the Indian Government.

The Prime Minister of India has announced Digital India programme to transform India into digital empowered society and knowledge economy. This is a vast programme envisaged by the Department of Electronics and Information Technology (DeitY). The vision of Digital India aims to transform the country into a digitally empowered society and knowledge economy. The programme will be implemented in phases from the current year till 2018. The Digital India is transformational in nature and would ensure that Government services are available to citizens electronically. It would also bring in public accountability through mandated delivery of government's services electronically, a Unique ID and e-Pramaan based on authentic and standard based interoperable and integrated government applications and data basis.

The Prime Minister wants to ensure a smartphone in the hands of every citizen by 2019 and want to ensure that all the services can be provided through a mobile handset, especially, health, education, various government services and retail. The open access to "broadband highways" across cities, towns and villages would give a fillip to trade across the country. The programme will be implemented in phases from the current year till 2018.

As per NASSCOM (An apex IT-Business process Management(BPM) association in India) FY2014 has brought optimism for the Indian IT-BPM industry. Rapid technology transformation is leading to altered and dynamic client engagement, which in turn is fueling business transfiguration, speeding up delivery services, and driving innovation capabilities across practices and operations. In FY2015, NASSCOM expects the industry to add overall revenues of USD 13-14 to existing industry revenues of USD 118 billion. Export revenues for FY2015 is projected to grow by 13-15% to reach USD 97-99 bn. Domestic revenues for the same period will grow at a rate of 9-12% percent and is expected to reach INR 1250 - 1280 billion during this year.

### **1.2 EC Market size & Growth**

As per NASSCOM in FY 2014 despite challenges in the global market, Indian IT-BPM industry sustained its growth trajectory and is expected to clock export



revenues of USD 86 billion with a Y-o-Y growth rate of 13 per cent. Domestic market also witnessed YoY growth rate of 10% taking the domestic revenues to INR 1150 billion. The Indian IT-BPM sector continues to be one of the largest employers in the country directly employing nearly 3 million professionals, adding over 160,000 employees-- direct employment – 3.1 million; indirect employment- 10 million. FY2014 can be characterized by rapid evolution, expansion of verticals and geographic markets, attracting new customer segments, and offering a considerably wider spectrum of solutions. Indian IT-BPM continues to remain the highest impact sector for India among all industries with the highest relative share in India's GDP and exports among all services industries.

The 2020 vision of USD 300 billion will be driven by new business models, service lines and talent structures. Business models have been shifting from traditional labour-based onsite-offshore model to cloud-based and off-premise solutions. These changing models will bring compelling business innovations with greater breadth and specialization across key verticals - Banking, Financial services and Institutions (BFSI), telecom, healthcare, social entrepreneurship etc. To sustain growth in the coming years, the industry is going to focus on verticalization, operational excellence and expanding global delivery model.

Indian e-commerce is projected to explode from \$10 billion to \$43 billion in the next five years, according to Nomura's India Internet Report.

The online travel accounted for 70% of the overall Indian e-commerce market in 2013, according to IAMAI.

Buoyed by the growing popularity of online shopping in India, the e-commerce market will see companies investing close to \$ 2 billion in logistics, infrastructure and warehousing in the next six years, a study said.

With an exponential increase in internet usage, there's an increasing PC and broadband penetration, coupled with the declining prices of PCs. Tablets and smartphones have given a new meaning to connectivity and user experience. The adoption of 3G and upcoming 4G technology, alongwith the declining prices of smartphones, is expected to result in an additional increase in internet usage in the country. Improvements on the payment front have brought about the increasing use of plastic money by Indian consumers. Payment gateways have now been made more secure through multiple levels of authentication via one-time passwords (OTPs). This has helped strengthen users' confidence in carrying out online transactions.

Factors helping the the growth of eCommerce in India.

**Device**

Increased PC penetration  
 Increased Smart phone and tablet market  
 Declining PC, tablet and smart phone costs

**Demographic**

Rising disposable income  
 Rapid urbanisation  
 Need for convenience

**Convenience****Internet**

Growth of internet user base  
 Increased broadband penetration and launch of 3G and 4G  
 Declining internet tariffs

**Services****Payments**

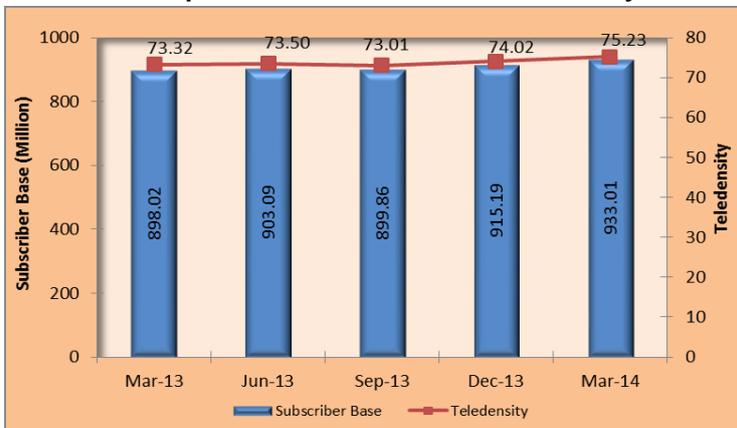
Multiple payment instruments  
 Increased average transaction value  
 Increase in payment gateways  
 Enhanced security with multiple authentication layers

**Highlights on Telecom Subscription Data as on 31st March 2014**

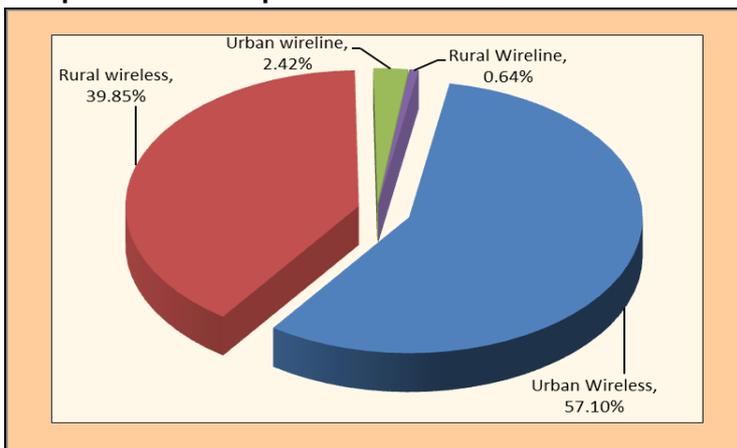
<b>Telecom Subscribers (Wireless +Wireline)</b>	
Total Subscribers	933.01 Million
Urban Subscribers	555.28 Million
Rural Subscribers	377.73 Million
Teledensity	75.23
<b>Wireless Subscribers</b>	
Total Wireless Subscribers	904.51 Million
<b>Wireline Subscribers</b>	
Total Wireline Subscribers	28.50 Million
<b>Internet / Broadband Subscribers</b>	
Total Internet Subscribers	251.59 Million
Narrowband subscribers	190.72 Million
Broadband subscribers	60.87 million
Wired Internet Subscribers	18.50 Million
Wireless Internet Subscribers	233.09 Million
<b>Broadcasting &amp; Cable Services</b>	
No. of private satellite TV channels registered with Ministry of I&B	793
Number of private FM Radio Stations	242
Registered DTH Subscribers	64.82 Million



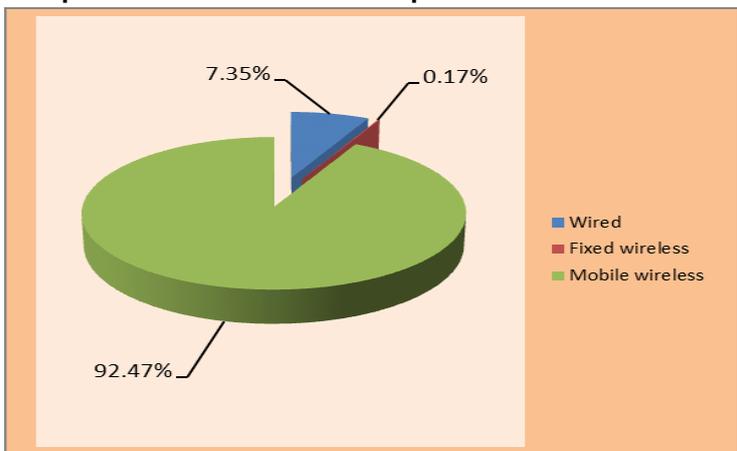
### Trends in Telephone subscribers and Teledensity in India



### Composition of Telephone Subscribers



### Composition of internet subscription





## **SECTION II**

### **Awareness and Education Programs**

#### **2.1 Digital India**

The Digital India project aims to offer a one-stop shop for government services would use the mobile phone as the backbone of its delivery mechanism. The government hopes the initiative that seeks to transform India into a connected economy to also attract investment in electronics manufacturing, create millions of jobs and support trade.

The plans to digitally connect the entire country will be supported by 20 and 40 hour modules on digital literacy in regional languages, which the government plans to run over the next few years. Supporting the initiatives will be 6-7 manufacturing clusters for electronic goods which have been approved to be set up in Jharkhand, Maharashtra and Madhya Pradesh for products such as mobile handsets, microchip and chip-less designs and set-top boxes, he said.

#### **The vision areas of Digital India:**

##### **I Infrastructure as Utility to Every Citizen:**

- High speed internet as a core utility shall be made available in all Gram Panchayats.
- Cradle to grave digital identity - unique, lifelong, online and authenticable.
- Mobile phone and Bank account would enable participation in digital and financial space at individual level.
- Easy access to a Common Service Centre within their locality.
- Shareable private space on a public Cloud.
- Safe and secure Cyber-space in the country.

##### **II Governance and Services on Demand:**

- Seamlessly integrated across departments or jurisdictions to provide easy and a single window access to all persons.
- Government services available in real time from online and mobile platforms.
- All citizen entitlements to be available on the Cloud to ensure easy access.
- Government services digitally transformed for improving Ease of Doing Business.
- Making financial transactions above a threshold, electronic and cashless.
- Leveraging GIS for decision support systems and development.



### **III Digital Empowerment of Citizens:**

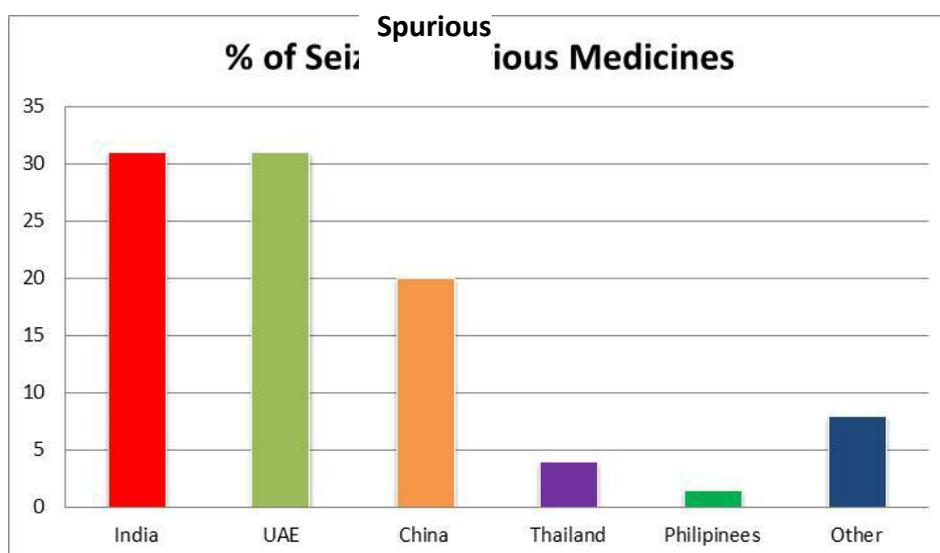
- Universal digital literacy.
- All digital resources universally accessible.
- All Government documents/ certificates to be available on the Cloud.
- Availability of digital resources / services in Indian languages.
- Collaborative digital platforms for participative governance.
- Portability of all entitlements for individuals through the Cloud.

### **Approach and Methodology:**

- Ministries / Departments / States would fully leverage the Common and Support ICT Infrastructure established by the Government of India.
- The existing/ ongoing e-Governance initiatives would be revamped to align them with the principles of Digital India. Scope enhancement, Process Reengineering, use of integrated & interoperable systems and deployment of emerging technologies like Cloud & mobile would be undertaken to enhance delivery of Government services to citizens.
- States would be given flexibility to identify for inclusion additional state-specific projects, which are relevant to their socio-economic needs.
- e-Governance would be promoted through a centralised initiative to the extent necessary, to ensure citizen centric service orientation.
- Successes would be identified and their replication promoted proactively.
- Public Private Partnerships would be preferred wherever feasible.
- Adoption of Unique ID would be promoted to facilitate identification, authentication and delivery of benefits.
- Restructuring of NIC would be undertaken to strengthen the IT support to all government departments at the Centre and State levels.
- The positions of Chief Information Officers (CIO) would be created in at least 10 key ministries so that various e-Governance projects could be designed, developed and implemented faster.
- DeitY would create necessary senior positions within the department for managing the programme.
- Central Ministries / Departments and State Governments would have the overall responsibility for implementation of various Mission Mode and other projects under this Programme. Considering the need for overall aggregation and integration at the national level, it is considered appropriate to implement Digital India as a programme with well defined roles and responsibilities of each agency involved.

**SECTION III – e-READINESS and e-APPLICATION -- eGOVERNMENT/  
eBUSINESS RELATED PROJECT UPDATES****3.1 System for Authentication, Trace & Track of  
Pharmaceutical Products in India****3.1.1 Nature of Project**

Drugs play a crucial role in saving lives, restoring health, preventing diseases and epidemics. But they need to be safe, efficacious, good quality, and used rationally. Their production, import/export, storage, supply, and distribution should be subject to government control through prescribed norms and standards of an effective regulatory system. But substandard and spurious drugs proliferate primarily in the environment where the drug regulation has proved ineffective. As a result, patients consume more amounts of drugs to get relief but they do not get the desired result. Spurious drugs can escape all controls. Due to these reasons, Spurious drugs has become a global problem which now has attained due attention of people from medical profession.



Source: European Commission Taxation and Customs Union Summary of community customs activities

WHO has taken all possible initiatives to combat spurious drugs menace and laid various guidelines also. India contributes to major drug production in the world. Therefore, drugs registration in India needs to be strengthened to ensure that all drugs that are domestically produced as well those imported are assessed for safety, efficacy and quality before they are available to the



consumers.

This project would address the concern of drug authentication, trace and track and consumer empowerment using a serialization mechanism at various level of packaging in compliance to global standards for all drugs manufactured in India either for domestic consumption or for exports. Drug authentication, trace and track would be enabled by various means through Central Portal and SMS. The project covers all the drugs manufactured in India. It would empower the consumers of India regarding the authenticity of the medicines they consume, and improve the overall efficiency, effectiveness, transparency and accountability of the Pharmaceutical distribution in our country.

#### **Stake Holders**

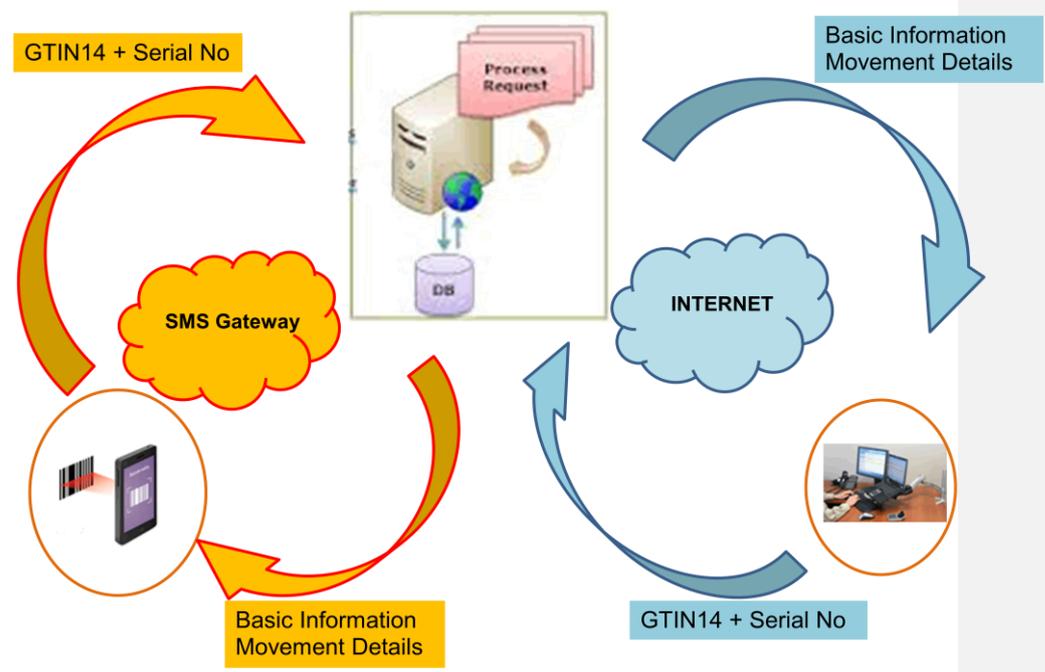
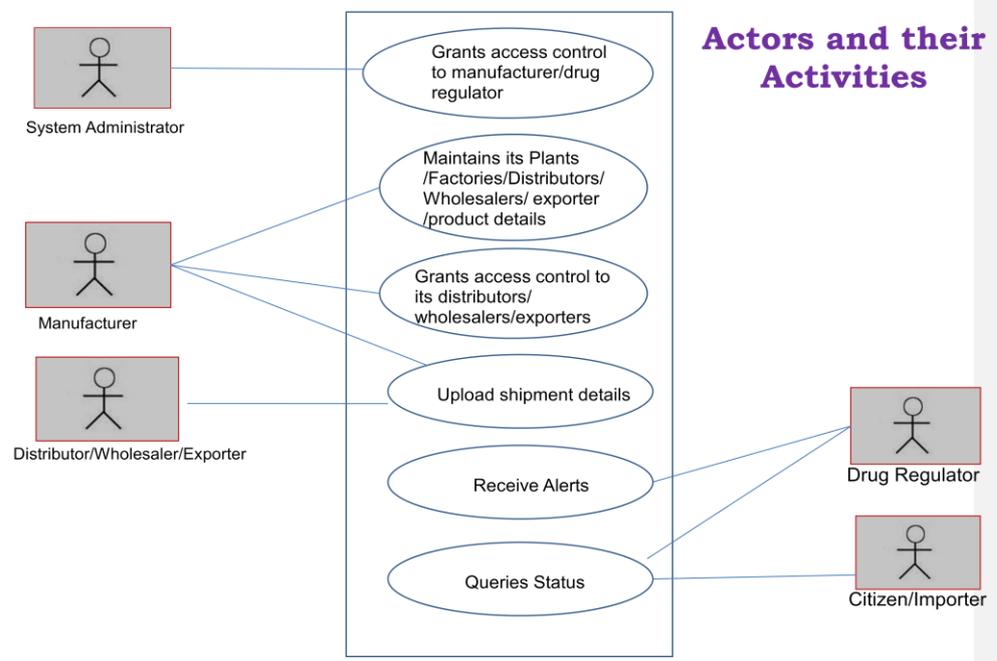
- Government of India
  - Department of Commerce
  - Ministry of Health and Family Welfare
  - Drug Controller General of India
  - Pharmexcil
  - GS1-India
- Manufacturers/ Exporters/ Whole Sellers/ Distributers/ Retailers
- Consumer/ Citizen / Importing country

#### **Objectives**

The primary objective of this project is to empower the Citizen of India by providing him/her a way to verify the authenticity of drugs he/she has purchased.

The mechanism of authentication should be that it could easily be used by any common person regardless of his level of education, area of residence, degree of affluence or any other socio-economic factor.

The Secondary objective of the project is to build a system through which tracking and tracing of the drugs could be achieved at any given point in Pharma distribution system.



Unique Serial Number & SMS Authentication



The fundamental behind the solution is printing a unique, randomly generated numeric/alphanumeric code on all the manufacturers saleable item i.e. strip, vial, and blister sold to a customer and provide a SMS short code/mobile number through which a customer can SMS the code and gets his/her drug authenticated. The Manufacturer and Merchant exporters will upload the serialization data into a database so that it can be accessed by the central portal for authentication.

### Features of the proposed system

Web based portal / SMS based system enabling the citizens to check the authenticity of the drugs online or on mobile

- Complete supply chain for drugs exported/ domestic supply to ensure the reliable supply of drugs to consumers for patient safety and brand protection of manufacturer as well as nation
- Following information to be provided online or on mobile :
  - Name of Drug
  - Name of Manufacturer
  - Batch number
  - Date of manufacturing
  - Date of expiry
  - Usage of drug
  - Composition of drug
- Help in prevention of counterfeiting, fraud and illegal sale of drugs

Authentication through Internet





## Authentication through SMS



## Basic Information

**Value-added Features in the proposed system:**

- Availability of stocks for a drug in an area/wholesalers/retailers at a point of time
  - If required, drugs can easily be identified and recalled due to traceability of stocks
  - Online information regarding the availability of substitute drug with same composition in domestic market
  - Prevention of black marketing which especially arises during epidemics
- Regulatory agencies like DCGI can do sample picking from the market itself



## **Member Progress Report**

**I. R. Iran**

**32st AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



**Iran Centre for eCommerce Development**



## **SECTION III –e-Readiness and e-Application -- eGovernment/ eBusiness RELATED PROJECT UPDATES**

### **3.1 National Single Window Project**

Single window has been proven to be one of the best tools for achieving trade facilitation. The economic benefits of implementing single window have encouraged many countries to implement it successfully to consider accomplishing it in a near future.

This important issue has been well understood by high level government officials in Iran and they have started to take part in the process of implementing a national Single Window.

Iran Centre for eCommerce Development (ICeCD) is the government body that among other responsibilities is also in charge of Single Window development. This centre has done the following activities to implement the project:

#### **3.1.1 Establishment of National Committee for electronic Facilitation of Trade**

To maintain all activities related to single window project in a coherent and coordinated manner, a steering Committee composed of the main stakeholders of the foreign trade entitled as “national committee for electronic facilitation of trade” (NCeFT) has been established.

The philosophy behind establishment of this Steering committee is actually what has been recommended by UN/CEFACT recommendation number four (Trade facilitation Body).

The structure of NCeFT has been depicted below. The steering committee organizations are:

- Ministry of industry, mines and trade (Chairman)
- Department of trade facilitation and application development of ICD (Secretary)
- Trade Promotion Organization of Iran
- Customs Organization
- Central Insurance of the Islamic Republic of Iran
- Central Bank of the Islamic Republic of Iran
- Maritimes and Ports Organization
- Iran Chamber of Commerce, industry and mines



Four technical subcommittees (Legal, Technical, Business Processes and Data Harmonization) are under the supervision of the steering committee. Members of the mentioned subcommittees are representatives of the stakeholder organizations in the single window project.

ICeCD is the permanent secretariat of NCeFT.

#### **Duties & responsibilities of NCEFT:**

- Re-engineering of sectorial trade processes to establish the required coordination for simplification of trade processes.
- Standardization & harmonization of trade documents & providing solutions for electronic exchange of them.
- Review, enact and proclaim rules and practices in order to establish a national library of shared data in business processes.
- Coordinating the relevant organizations in the area of electronic facilitation for trade.

#### **Single window project in Import Processes**

Due to the dimensions of the project and necessity of the improvement of cross-border trade, especially in the areas of import, the first phase of the pilot project changed from export of handicraft carpet to the import process. The most important activities which have been done before we conduct the pilot project in import area were:

- Forming a consultation council from expert people in IT and trade facilitation fields to receive their comments on SW requirements and providing tender documents and writing SW' RFP;
- Holding several meetings with key stakeholders' representative in order to identify the scope of import processes and details of them;
- Analyzing and designing the national repository of trade data, documents and codings.
- Writing the first draft of RFP;
- Extracting relationships of different stakeholders in import and export areas and drawing high level diagrams of the mentioned relationships;
- Holding a working session with representatives of the chamber of commerce in provinces in order to identify traders' requirements and concerns as key users of SW system;



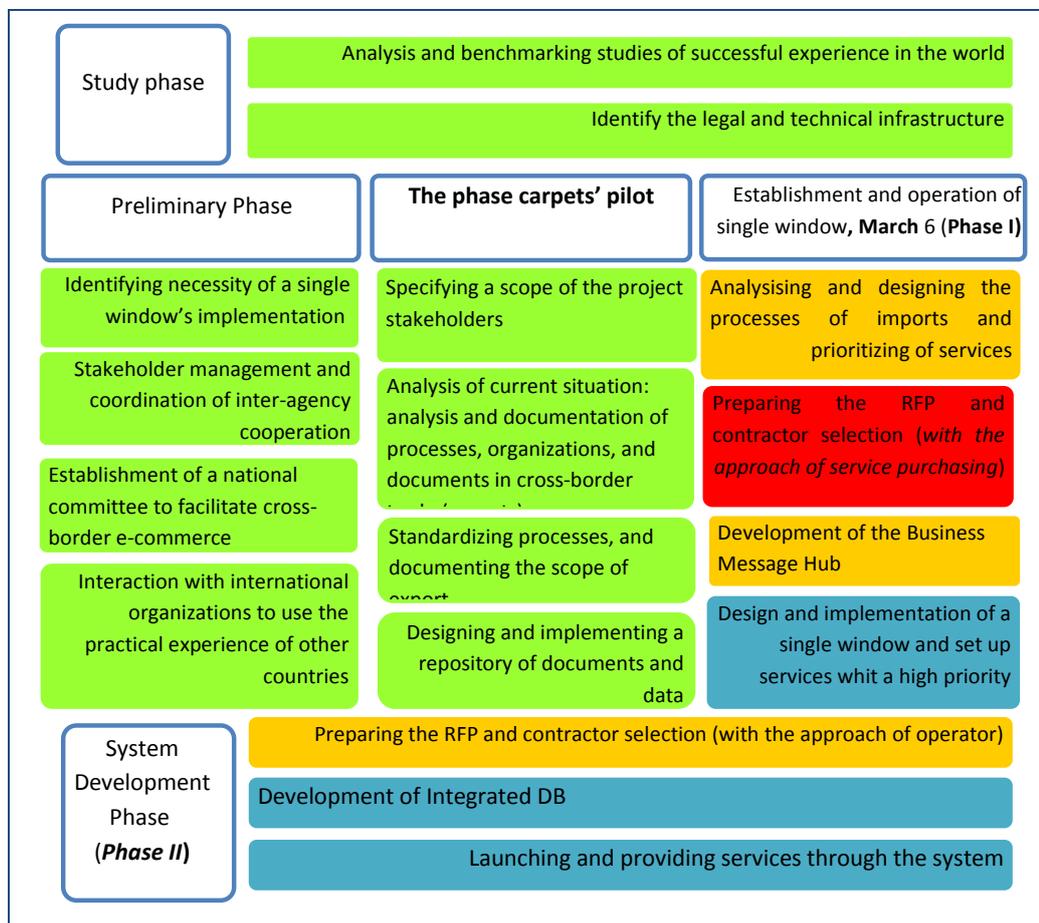
- Providing and publishing the RFQ to identify qualified firms for implementing SW system;
- Writing project standards for documentation of stakeholders' business processes;

At present, the import process in five areas of trade, banking, customs, transport, international and domestic logistic were analyzed. Each working sub-area has the various stakeholders and sub-processes. In designing each of areas, we try to document uniquely all of our results which are related to different organization. Each phases and project situation could be seen at the next part. The first phase is done by ICeCD and the others are done by contractor.

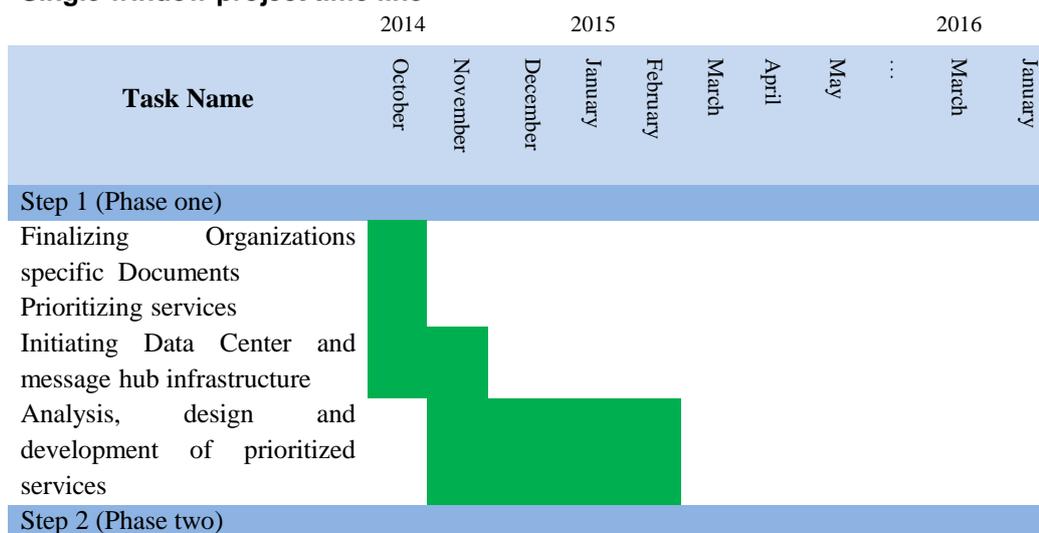
#### **Single window sub projects and phases**

##### **Phases / sub-projects**

Colors Guide:	
 Phase/sub-projects	 Completed
 In doing	 future
 Critical	



Single window project time line





Prepare main contractor RFP

Choose Contractor

Analysis and Design

Development and implement

Step 3 (phase Three)

Continues analysis, Design  
and Improvement

### **3.2 Iran Public e-Procurement System**

IRAN public e- Procurement solution that is called “SETAD” in the native language is a web based solution for doing all transactions (purchases and auctions) by public agencies. This system enables the buyer executive agencies to do all stages of the purchase process from request establishment to payment in a decentralized and integrated system all auctioning executive agencies, also, will be able to implement all stages of the state auctions from registration to money transactions via internet solution.

All public sectors based on (Law for management of the country wide services) are the buyers of this system. SETAD suppliers are firms and individuals who completed the registration & approval process. Also it's necessary for suppliers to determine the specifications & prices of their products.

#### **3.2.1 Goals and objectives**

- ✓ The most important objectives of Iran Public e-Procurement System implementation are as follows:
- ✓ Following the same & common purchasing policies and processes by the public sectors
- ✓ Transparency, monitoring and control in e-procurement process and improving better interaction between supplier and vendors
- ✓ Security management and Execution of digital signature in the country
- ✓ Product management and Execution of Iran-code in the country
- ✓ Data and information management
- ✓ Preparation for market control & stability of prices
- ✓ Preventing cartel by vendors
- ✓ Turnover management

#### **3.2.2 Benefits and Achievements:**

- The significant benefits of implementing Public e-Procurement System in Iran are as follows:
- Increase efficiency in purchasing process
- Improvement in management costs;



- Cost reduction in request to order process;
- Reducing business cycle time by;
- Minimize human errors approximately;
- Ability to provide different kinds of managerial and supervisory reports for the regulatory and government bodies in all modules;
- Electronic security and more protection against illegal activities
- Ability to on-line subtle control of public purchase process at any time and any place.
- Long-term storage of electronic documents
- Reducing corruption and preventing abuse in executive bodies by 35%
- Increasing competition
- Electronic systems and environment friendly ( paperless transactions )

### 3.2.3 Background & Infrastructures

#### ➤ Legal :

In order to considering SETAD as a mandatory system for government agencies, Cabinet legislation and government regulation has approved some rules and laws as below:

- Cabinet Resolution (No. 110 009 / d of 44 897, dated 2010/08/10)
- Regulation for IRAN e-Procurement system (No. 165 389 / T 46 849 K dated 2011/11/19)

#### ➤ Digital Signature :

Digital signature completely fulfills the system requirements and allows the suppliers and buyers to exchange information completely safe in the platform based on the "Electronic Commerce Act", also time stamping critical events apply in e-Tendering and e-Auction systems.

#### ➤ National Products and Services Codification system

Due to the practical use of the country's infrastructure capability and considering the national classification system for the goods and services, only the products that have the national code are presented in SETAD and all suppliers should apply to obtain their national code before becoming a member of SETAD.

### 3.2.5 Project Content:

Iran Public e-Procurement System implemented in Iran government agencies in 2010 and since now more than 1250 agencies have been involved in Iran. The main operational phases of Iran public e-procurement system that is called "SETAD" has been set as follow that 2 phases of the system has been fully implemented, the implementing of the third phase has been started since 2013/05/10 and the fourth phase is in the design and development step :

Phase 1: Shopping Mall (Small & Medium purchases)

Phase 2: e-Auction

Phase 3: e-Tendering (Major purchases)



Phase 4: Purchasing of Services

Phase 5: foreign purchases



### 3.2.6 Project Activities

The most significant actions taken so far for the implementation are as follows:

- Doing benchmarking studies (Union of Europe, America, South Korea, India, Britain, Turkey, Italy, Tanzania and etc.);
- Feasibility study project by Korean expert team;
- Using consultancy services from the central government purchases of Korea (PPS);
- Developing modules and processes that is needed by public departments for the Shopping Mall (Small & Medium purchases), e-Auction and e-Tendering system based on government laws;
- Coordinating and settlement with public supervision bodies and organizations include: Ministry of Economic Affairs and Finance (Treasury Deputy General Manager and General Manager of Treasury Accounting) and Court of Audit for trade facilitation calculation of the system;
- Preparing facilities for internet payment from government account to suppliers based on state cabinet laws;
- Preparing standard catalogue for goods;
- Registration of suppliers for the goods;
- Detailed user's guide documents for systems users (for all users roles);
- Training courses for users (Suppliers & Buyers);
- Registration of buyers in public sector;
- Making facilities and executing call center and help desk;
- Use of SMS to inform the Suppliers

Some important features of this system are as following:



- Integration of processes, activities, information and sections;
- Great flexibility and ability to improve the system;
- Easy usability;
- Modular designing;
- Adaption of the system with the current rules;

Some of the most important outputs and achievements of Iran Public e-Procurement System is illustrated in the following table:

Subject	Year				
	2010	2011	2012	2013	2014 (September)
Total number of registered suppliers	50	40	228	626	1455
Total number of registered bidders	0	0	0	1139	860
Total number of registered buyers	1	13	71	64	29
Total amount of Purchases (unit)	0	46	915	3107	6082
Total amount of Auctions (unit)	0	0	0	77	86
Total amount of Tenders (unit)	0	0	0	6	117
Total number of trained agencies	0	0	145	180	255
Total number of trained employees in agencies	0	0	1762	1779	2697
Total number of trained suppliers	0	0	75	520	1315

### 3.3 eNAMAD

Success in e-commerce rest on many factors, one of the most important factors is trust.

Research has shown that lack of trust is the main impeding factor for adoption of e-Commerce by consumers. In order for e-Commerce to flourish, consumers must not be fearful that they will be cheated, defrauded, have their credit card numbers stolen, or receive poor quality goods or service. In an electronic commerce environment, trust is more difficult to build and even more critical for success than in traditional commerce. Therefore, building trust in customers is one of the most challenging subjects for actors in the field of electronic commerce.

In this regard a project for organizing e-business was defined in economic reform plan & was assigned to ministry of industry, mine & trade. The mentioned project entitled as eTrust seal (eNAMAD in Persian language) was carried out by Iran center for ecommerce development which is affiliated to ministry of industry, mine & trade.

eNAMAD project aims to regulate e-business, support consumers in ecommerce environment & encourage of internet shopping in the country.



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eTrust seal as a symbol of trust ensures customers that the internet shop displayed the seal has been investigated by a government body & can be trusted thereby improving customer confidence in cyber space.

eNAMAD could be a one to five star seal dedicated to eligible internet shops. Giving eTrust seal to Iranian internet shops has been started since 2010. All the procedures of giving eNAMAD from request of internet shop owners for trust seal to investigation of e-shops through certain criterion, risk assessment & customer satisfaction are carried out through eNAMAD system.

➤ **Goals and objectives**

Mission statement of eNAMAD project is as follows:

Considering priorities & national needs, consistent with international experiences & standards & relying on technical knowledge & local expertise, the mission of eNAMAD is organizing, ranking & validation of e-business activities, protecting consumer rights in cyberspace for trust building & making the necessary infrastructure for electronic market development.

The main objectives of eNAMAD project are listed below:

- Regulating activities of e-Business & supporting the development & promotion of e-Business in the country
- Supporting consumers & customers in cyberspace
- Trust building & encouragement of e-Shopping

Secondary objectives of the project are explained below:

- Formalizing activities of e-businesses
- Development of regulations, standards & codes of conducting e-business activities
- Establishment of the national integrated system for identification of goods & services in cyberspace
- Development of e-Commerce innovations & applications for benefit of the country
- Culture building & training different groups of the society to benefit from the capabilities of e-Commerce
- Deal with threats of activities in cyberspace

➤ **Validation of e-Trust sign**

The customer of the e-Shops with an e-Trust sign can click on the e-Trust logo and after watching the e-Trust permission web-page to be ensured of original e-Trust sign.

Also the lists of the e-Shops that have e-NAMAD signs are accessible through the related web site.



➤ **Economic benefits, achievements, and impacts**

- Reducing cybercrime & legalizing internet business activities. According to cyber police report, less than 2 percent of cybercrimes come from those e-businesses which display eNAMAD in their web sites which is significantly lower than the crime rate before implementing eNAMAD project.
- Increasing customer trust in online shopping. The result of the latest survey conducted showed that the tendency to internet shopping has increased as a result of implementing eNAMAD project.
- Protecting customer rights through receiving customer complains & feedbacks
- Loading eNAMAD trust seal at least 2,500,000 times a day in the first page of e-shops.
- Centralized monitoring system in collaboration with relevant government agencies, in order to carry continuous specialized monitoring on the activities of e s-shops.
- Monitoring activities of e-business & forming the black list of violators.
- Creating and setting up a database of e-business owners who obtained eNAMAD.
- Creating a reliable and safe marketplace where buyers & sellers can trust each other
- According to the law, Owners of web sites cannot get payment gateway unless they obtain eNAMAD trust seal
- Establishing a database of companies and organizations that are active in the field of e-business and introducing them to consumers.

➤ **Highlights of Best practices during recent year**

- Issuing eNamad for more than 5,200 e-shops
- Starting a consulting center for e-shops
- Deployment of a lab for testing e-Shop's application and issuing certificates for qualified ones.
- conducting the first festival for "Internet shopping week" with participation of e-shops which obtained eNamad
- Deployment of twelve specialized training courses for e-Shops.
- Compiling the e-shops grading procedures and planning to implement the procedures.
- Considering the complaints and settling the issues raised between consumers and e-Shops

### **3.4 Security infrastructure**

In this section of the report the efforts of the government of the Islamic Republic of Iran to implement security infrastructure have been explained. The security infrastructure has been provided through Governmental Root Certification Authority (GRCA) & General intermediate Certification Authority (GICA).



### **3.4.1 Governmental Root Certification Authority (GRCA)**

GRCA is the trusted point of public key infrastructure (PKI) of IRAN for monitoring of digital certificates issuance and management with the purpose of security development in the information exchange area, authentication in cyberspace at national and international levels and ultimately confidence in the use of electronic services. GRCA is responsible for all aspects of issuance and management of Intermediate CAs certificate, including monitoring registration processes, authentication, issuing and revocation of certificates and re-key. Centers that got permission and also received a certificate from GRCA are said to be Intermediate Certificate Authorities. These centers are qualified for issuance and revocation of subscribers digital certificate.

#### **3.4.1.1 Goals**

The goals of GRCA are described below:

- 1 - The development of public key infrastructure in the country;
- 2- Integration of country public key infrastructure to facilitate interoperation;
- 3 - Reliability of the business and electronic commerce in the country;
- 4- Accreditation, auditing and development of Intermediate CAs;
- 5 - Management and monitoring the integrity of certificate authorities in the country;
- 6- Evaluation and accreditation of Public Key Infrastructure related products;
- 7-Establishing of interoperability with other PKI Domains in other Countries for cross border transactions

#### **3.4.1.2 The achievements of GRCA**

1. Developing and implementing the requirements and standards for integration and consolidation of the public key infrastructure;
2. Applying the principles and standards aimed at ensuring the proper electronic exchanges;
3. Correct understanding of applications and digital certificate status for the development of public key infrastructure application platform;
4. Coordinated, integrated management and monitoring of CAs implementation and activities in the country;
- 5, Activation of some governmental and private intermediate CAs;
6. Evaluation of PKI related software and hardware security products and improving their level of security and performance.

GRCA projects and related progression is described below:

No.	Project Category	Project Name	Progresses (%)
1	Standards	Preparation of 4 national PKI standards	100



2	Standards	Preparation of Mobile PKI standard	80
3	Documentation	Preparation of an English version of the country's certificate policy document and certificate profiles comprehensive document	100
4	Executive project	Improving the Laboratory for testing and evaluation of digital certificates issuing and managing products;	70
5	Executive project	Improving the Laboratory for testing and evaluation PK-enabled applications;	80
6	Executive project	Improving the Hardware Security Modules testing and evaluation laboratory;	70
7	Executive project	Improving the Cryptology Laboratory	75
8	Executive project	Test and evaluation of 30 different brands of cryptography modules in HSM laboratory	100
9	Executive project	Test and evaluation of 5 different brands of certificate issuance and management products, 4 PK-enabled application and 2 PKE SDK in the PKI laboratory.	100
10	Executive project	Establishment of Petroleum Ministry Government Intermediate CA	100
11	Executive project	Establishment of Iran Capital Market Government Intermediate CA	100
12	Executive project	Establishment of two other Intermediate Private CAs	70
13	Executive project	Cross Recognition between PKI of Iran and other countries	40
14	Executive project	Establishment of Information Security Management System (ISMS) in GRCA	100

### 3.4.2 General Intermediate Certification Authority

General Intermediate Certification Authority (GICA), is a center that provides digital certificates for various usages. Certification Authority of Ministry of Commerce began its operation in 2008 and continued its operation for 7 years now. GICA is the first intermediate CA of IRAN Public Key Infrastructure (PKI) that obtained its license from "Digital certificate policy council" to issue digital certificates publically. GICA's certificate was signed by Root CA.

#### 3.4.2.1 Services

GICA started its service with providing just one service (issuing certificate for Digital Signature usage) at first. But it developed and completed its services gradually and now is providing services for the following usages in 4 security levels:

1. Digital Signature
2. SSL (Secure Sockets Layer)



3. Secure Email
4. Code Signing

GICA also provides services such as OCSP (Online Certificate Status Protocol), TSA (Time Stamping Authority) and LDAP for its applicants.

#### **3.4.2.2 Goals and objectives**

- Establish procedures to ensure data integrity, non-Repudiation, Confidentiality and Authentication for electronic communications and documents.
- Establish procedures to ensure interoperability with other certification Authorities
- Public Key Infrastructure Compliance with legal infrastructure
- build confidence in electronic exchange of goods, services and information in cyberspace

#### **3.4.2.3 PKI Enabling of eTax System**

It has been one of the goals and aspirations of the country's authorities to implement a comprehensive tax plan in the country on one hand and also, promotion and development of electronic commerce on the other hand. This is achieved by application of digital certificates.

Therefore the two responsible governmental organizations i.e. the State Taxation Affairs Organization and Iran center for ecommerce development (ICeCD) formed a joint working group in order to design and implement a system to submit the tax return electronically and digitally signed.

Then in 2012 ICD implemented the same project for the VAT4 and equipped their system with the ability to use and accept digital certificates to submit the tax returns.

Thus, the key issue in the establishment of the comprehensive tax plan, which was the problem of submitting the tax returns in paper manually, was solved and this project practically provided the prerequisites required to implement the comprehensive tax plan fully in the country.

In order to fulfill the tasks of Iran center for e-commerce development and the State Taxation Affairs Organization in the country, an MOU<sup>5</sup> was signed between this organization and ministry of mine trade and industry in September 2011. The purpose of this MOU was the application of digital certificates in the comprehensive tax plan.

For the first time in the country nearly 6,000 taxpayers submitted their tax returns electronically and digital signed in July 2012.

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<sup>4</sup> Value added tax

<sup>5</sup> Memorandum of understanding



Following that the same procedures were followed up for the VAT system and technical procedures were completed at the end of December 2012 and after necessary preparation the project was launched in July 2012 for the first time.

According to the statistics, until the legal deadline of submitting tax returns in 2014, more than 40,000 digital certificates were issued.

This project is one of the most important actions of this center for promoting and developing application of digital certificates and electronic commerce in the country.

#### **3.4.2.4 Use of Notaries as RAs**

One of the most important issues in the development and use of digital certificates is the difficulty of access to RAs which leads to inhibition of growth and popular use of digital certificates.

Therefore, based on studies conducted, at first, RAs (that were active only in Certification Authorities), established in the capitals of provinces by the commercial organization of that province. And then in the next phase a plan was formed with the main idea of geographical coverage. With The approach of geographical coverage (considering the fact that potentials of the private sector should be noted) notaries were considered.

The goal of this project is to assist development and promotion of electronic commerce in the country. This is achieved through providing easy access to issuance of digital certificates for all applicants all over the country and consequently increasing the rate of digital certificate issuance.

#### **Benefits and Achievements**

- Facilitating easy access to RAs for issuance of digital certificates for all people in the whole country.
- Removal of dependency on CAs for issuance of digital certificates in order to setup PKE applications.
- Development and promotion of electronic commerce and electronic government.
- Increasing the rate of issuance of digital certificates in the country.
- The institutionalization of this matter that people can get a digital certificate in the closest possible place in the whole country.
- Successful implementation of this project as an infrastructure led to successful implementation of PKI enabling of eTax system for the State Taxation Affairs Organization.



## **Member Progress Report**

### **Japan**

**32nd AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



**Japan Association for Simplification of  
International Trade Procedures**



## SECTION I - GENERAL CONDITION UPDATE

### 1.1 Overview

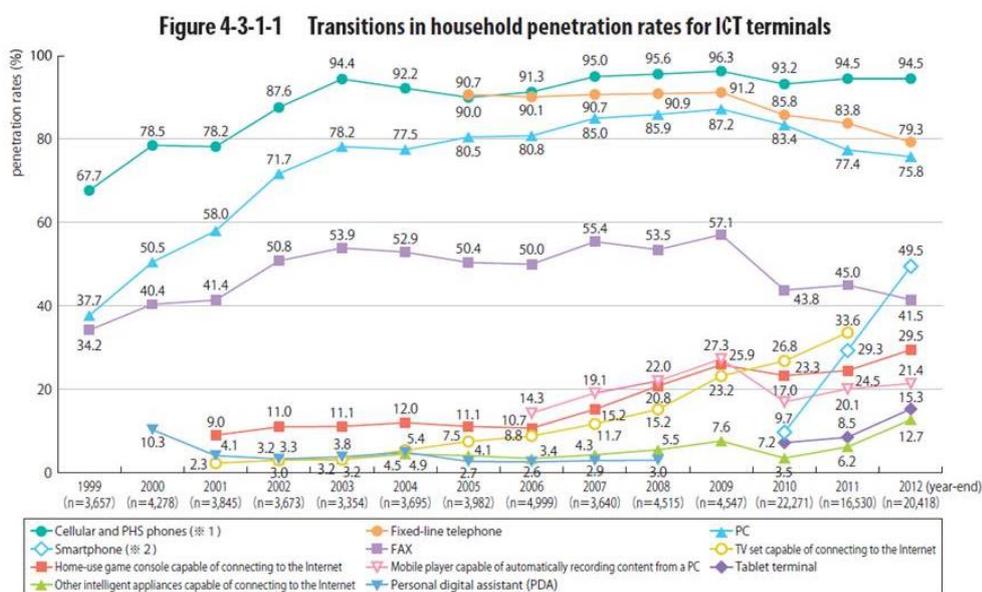
#### 1.1.1 Overview in 2014 (Internet Utilization Trend)

Following information is quoted and translated from the white paper(2014) 'Information Communications in Japan' issued by Ministry of Internal Affairs and Communications, Japan(MIC)

The household penetration rate was 94.5 in 2012 and was 94.8% in 2013 for cellular phones and personal handy-phone systems. 75.8% in end of 2012 and 79.1% in end of 2013 for personal computers.

The rate for smart-phones included into the total number of cellular phones and PHS stood at 49.5% in end of 2012 and 62.6% in end of 2013(13.1 point up), indicating a rapid diffusion.

Following figure is quoted from the white paper(2013) in English version issued by MIC.



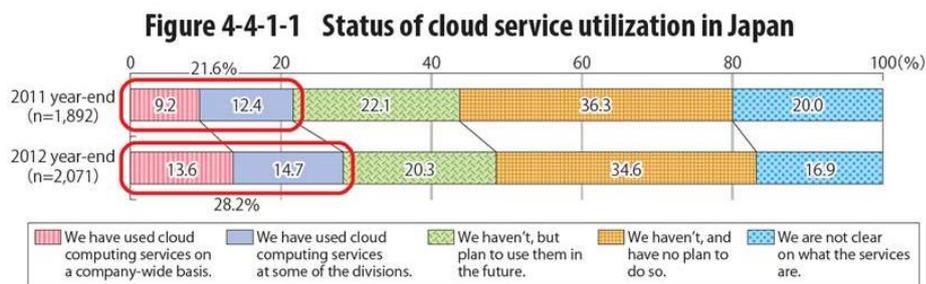
(Source) MIC "2012 Communications Usage Trend"

#### 1.1.2 Overview in 2014 (Cloud service Utilization Trend)

Enterprises that said they had used cloud services even partially accounted for 33.1% of enterprise respondents in MIC's survey, up 4.9 percentage points from 28.2% at then of 2012.



Following figure is quoted from the white paper(2013) in English version issued by MIC.



(Source) MIC "2012 Communications Usage"

### 1.1.3 A new IT strategy 'Smart Japan ICT Strategy'

Following the IT strategy 'Becoming the world's leading IT society' decided by the Cabinet on 14th June 2013 with a scope of a period until 2020, the Ministry of Internal Affairs and Communication (MIC) issued a new IT strategy 'Smart Japan ICT Strategy' in June 2014.

The perspective of this strategy is as follows.

## Smart Japan ICT Strategy – Perspective –

### Mission

**To be the most active country in the world**

-Realizing Japan's economic growth and contribution to international society through innovation by ICT-

### Vision

- ① Building "a knowledge- and information-based nation" by 2020
- ② "3 in 1" solution of problems of the globe, Japan and other countries all together by ICT
- ③ "Practice" and "Speed" on global viewpoints

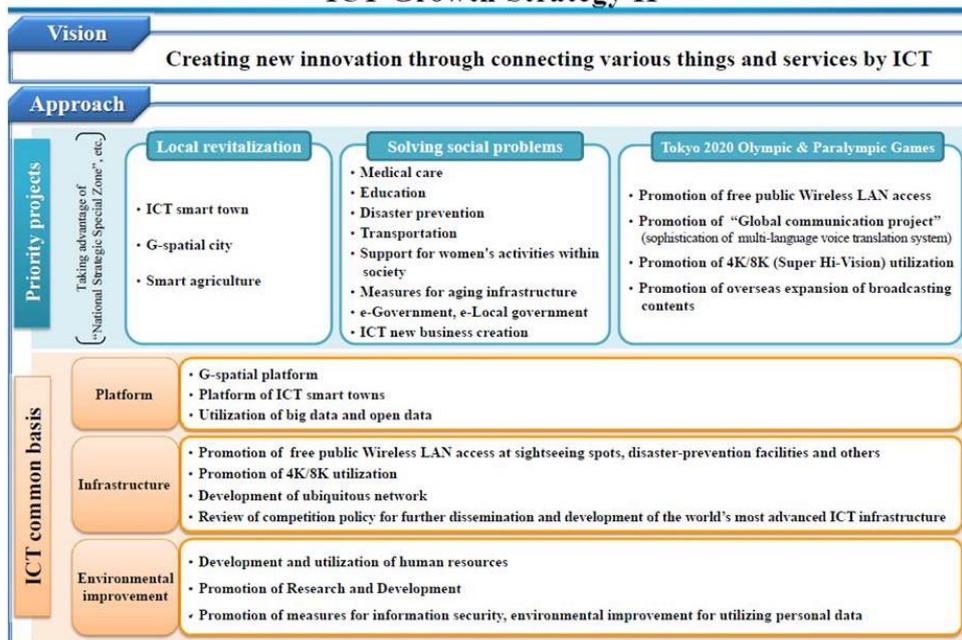
### Action

- ① Connection between national and international strategy  
National strategy: ICT Growth Strategy II  
International strategy: Initiative on Intensification of International Competitiveness and Global Outreach in the Field of ICT
- ② Realizing the world's most advanced ICT environment for Tokyo 2020 Olympic and Paralympic Games

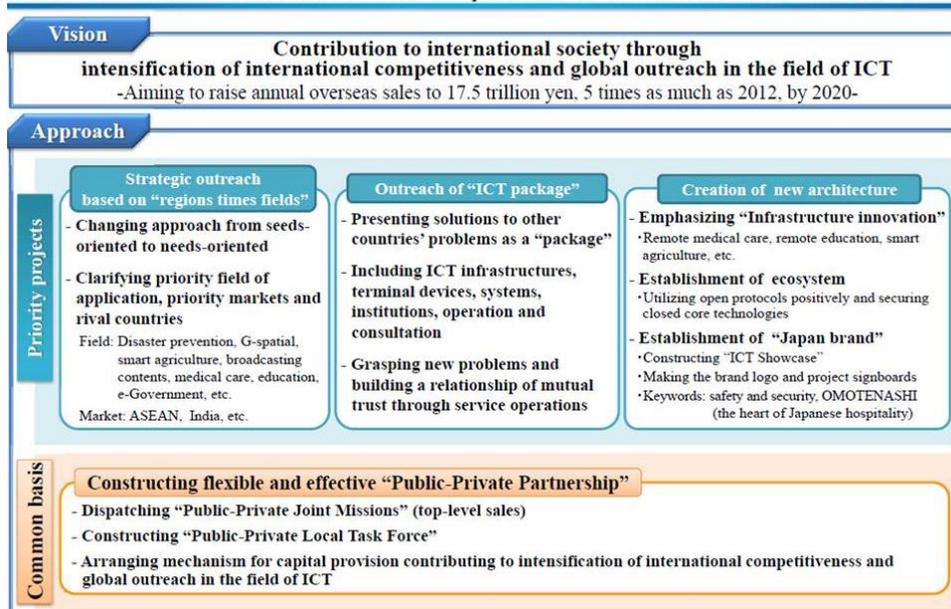


'Smart Japan ICT strategy covers two components ' ICT Growth Strategy II' (as National strategy) and 'Initiative on Intensification of International Competitiveness and Global Outreach in the Field of ICT' ( as an International strategy. )

### ICT Growth Strategy II



### Initiative on Intensification of International Competitiveness and Global Outreach in the Field of ICT





#### **1.1.4 The road map of government information systems revolution**

Following is quoted and translated from the white paper (2014) 'Information Communication in Japan' issued by Ministry of Internal Affairs and Communications, Japan(MIC).

The road map was decided on 26th Dec.2013 which says;

- 1,450 government Information systems , existing in 2012 will be merged and /or removed to 871 systems ( less 40%) in 2018.
- The government common platform is intended to cover 252 systems out of above 871 systems in 2018.



## SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

### 2.1 UN/CEFACT Japan Committee (JEC)

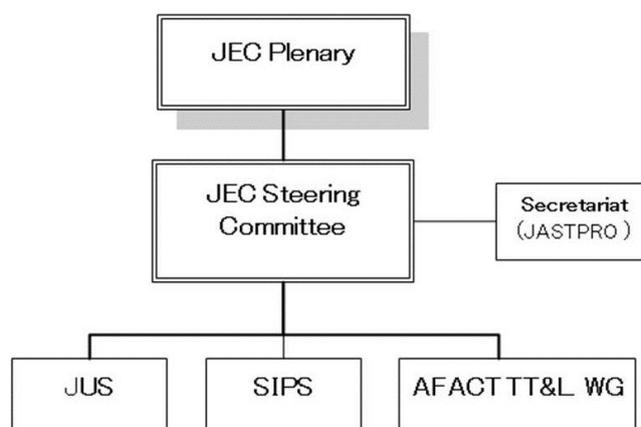
#### 2.1.1 Overview

The Japan EDIFACT Committee, the predecessor of UN/CEFACT Japan Committee was founded in 1990. Its mission was to enlighten and promote the of UN/EDIFACT standard for the better business practices in Japan. The old name of the committee was renamed to the above in 2007 to propagate UN/CEFACT's mission in Japan more clearly.

JEC consists of members from various sectors ( NACCS inc., trading, financing, manufacturing, distribution, construction, transportation, bank, insurance, Travel & Tourism, ITC etc. ) .

Ministry of Economy, Trade and Industry, Ministry of finance, and Ministry of land, Infrastructure, Transport and Tourism join as observers.

All inquiries forwarded by UN/CEFACT to Japan HOD are discussed in this committee.



#### 2.1.2 Japan Committee for UN/CEFACT Standards (JUS)

JUS is a working group under the umbrella of JEC. Members are composed of experts in various sectors. (Business procedure and ITC)

Inquiries by UN/CEFACT are discussed and verified in detail in this committee and the results are fed back to JEC in the name of Head of Delegation Japan.



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Also discussion is done as to;

- Evaluation of Data Maintenance Request (DMR) by parties in Japan
- Verification of UN/LOCODE of Japan location as Japan Focal point, requested by UN/CEFACT secretariat
- Evaluation of a new project proposal for which HOD support of Japan is applied by the project member(s)
- Coping with 'Public Review' for the draft UNECE recommendations, etc

Translation of UNECE recommendations and other deliverables into Japanese is another important role. Translated recommendation are open on JASTPRO official website.

### **2.1.3 Supply Chain Information Platform Study Group**

The project of the information platform for business infrastructure in Japan has been conducted by JEDIC (Japan EDI promotion Committee) supported by METI (Ministry of Economy, Trade and Industry) since 2009. The objective of the project was to promote the cross industry EDI specification in order to establish the ideal information platform sharing across various industry groups. Through the 3 years study with several industry groups, JEDIC has published the guideline for Information platform for business infrastructure (Version 1.1) based on UN/CEFACT standards.

In 2011, Japan had a disastrous Earthquake and Tsunami. After the tragedy, we have found the broken network in manufacturing supply chain in Japan. In addition to the tragedy in Japan, Japanese manufacturers met another crash of their factories and their partners by big flood near Bangkok of Thailand. For managing supply chain, especially for manufacturing, we recognized that we need the global wised information platform supporting their supply chain, which is interoperable among related countries.

Through those experience we have decided to establish the new group named SIPS (Supply Chain Platform Study Group) under the UN/CEFACT Japan Committee to reinvention the system for developing and promoting eBusiness focused on the global supply chain especially in Asian region.

SIPS inherits the outcome of JEDIC and amplifies them for adapting the global supply chain in Asian region.

We have 4 taskforces under SIPS for achieving the goal as follows.

- (1) International Collaboration Taskforce
  - We will continue to join developing and maintaining the international EDI standards conducted by UN/CEFRAC.
  - Through the activities in AFACT, APTFF and UNNEXT, we will take the certain roll for realizing Global Supply Chain in Asian Region.



(2) Global and Cross Industry EDI Taskforce

- We will amplify the Cross Industry EDI specification based on UN/CEFACT standards developed by JEDIC, and implement it in various industries in Japan.
- We will adapt the Cross Industry EDI specification for implementing it in several regions in Asia led by Japanese companies which are doing business in there.

(3) Messaging Platform Taskforce

- For reliable message exchange beyond borders, we will build consensus using the certain messaging service technologies and the interoperable infrastructure, such as PKI.

(4) Finance and Commerce Information Linkage Taskforce

- We will survey the business chance using the new standard of financial network (ISO20022) for Finance and Commerce Information Linkage, such as Supply Chain Finance.

By the end of March 2013, SIPS has published the 2<sup>nd</sup> version of the guideline for Information platform for business infrastructure. The guideline has been edited as the white paper “UN/CEFACT CCL Utilization in Japan” in English and published for AFACT members (September 2013).

In 2014, SIPS has enhanced the guideline for Information platform for business infrastructure. The new version of the guideline includes the new messages which are CI\_ Acknowledgement message and CI\_ Remittance Advice message. The CI\_ Remittance Advice message based on UN/CEFACT standard message “CrossIndustryRemittanceAdvice\_6p0.xsd” has been designed to be used included in the ISO20022 message “pain.001.001.05.xsd”.

#### **2.1.4 AFACT Travel Tourism and Leisure Japan Working Group**

In 2014, the 4<sup>th</sup> year of AFACT Travel, Tourism and Leisure Japan Working Group (Japan WG) has set a new working plan and been working on it as a working group in UNCEFACT Japan Committee. It has 2 sub-working groups mainly to forward SLH (Small scaled Lodging House) International Pilot Project among AFACT member countries.

Japan WG has schedules to have almost monthly virtual meetings with the members of AFACT countries in cooperation with AFACT secretary. It will send delegates to 2 F2F AFACT TT&L WGs. SLH International Pilot Project, Destination Travel Information Process Project, AppCross & Smart Tourism projects proposed by III are the major topics this year.



Sub-Working Groups set up this year are for forwarding SLH International Pilot Project and its Business Model, and for improving Language Translation. There may be 16 meetings in total scheduled this year.

SLH International Pilot Project is presently organized by 5 countries (Iran with Kish Free Zone Organization, Korea, Thailand, Japan, and Taiwan as a new player from this year).-Japan WG-has been providing them with the central servers for the test sites and their operating service, aiming to get familiarized with developing UNCEFACT standards on one side and on the other to aggregate any issues arising from the test for the betterment of UNCEFACT SLH standards developed to be used globally. The test itself has been proceeding steadily but slowly and step by step with good cooperation of the participating members. Japan WG has been learning much through this test with the participating members. It has been contributing with best available efforts to the test.

DTI, Destination Travel Information, process project proposed by Korea and approved by UN/CEFACT as a new project, has also been taken in Japan WG. BRS of Its process originated from Korea has been studied and some of it amended by Japan WG.

AppCross which is a software product of III has been in pilot test by Japan WG to be applied in Japanese travel and tourism market since March this year for the possible future use in Japan. This has been in the steady test with a good support of III. It will be anticipated to show good test results for provision of SLH and DTI related information with tablets and/or mobile devices.

Japan WG has a working plan to create and apply a set of UNCEFACT standards applicable for the touristic development in local regions of Japan. This effort has just begun for the future.

#### **2.1.5 'Reutilization of Data from Utility Management Systems' as a new project approach in UN/CEFACT initiated by Japan delegation**

This new project was initiated by Japan delegation at the 20th UN/CEFACT forum in September 2012. After discussion among other several countries, a project proposal was prepared by the working group then Japan confirmed its support.

The project officially launched in UN/CEFACT on 6th November 2013.

It is now on Requirement gathering step.

Purposes of the project are following two.



- a. To define business requirements for collecting and distributing information coming from energy management systems such as building utility management system, home utility management system, electric vehicle supply system, battery storage management system and related business information models.
- b. To clarify business requirements to reuse data in common ways not only for energy market but also for other markets. The data can be used for example for not only analyzing monthly consumption, saving energy, or lifting congestion but also applying them to other industries such as retailer's marketing or environmental planning. The basic concept is that data generated from the energy sector can be re-used by other industries.

#### **2.1.5.1 Progression of Three Country Rule**

Japan France and Austria

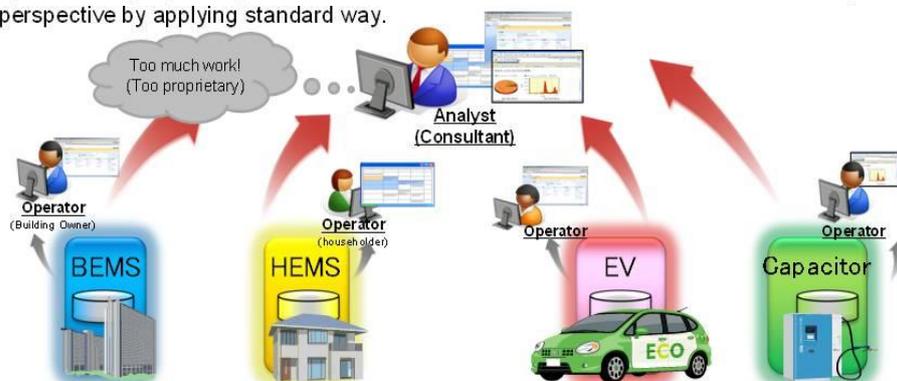
#### **2.1.5.2 Supporter Gathering**

This project is soliciting nations which will support three country rule and project members who will work together developing international standards at the UN/CEFACT.



## Energy Field's Current Movement and Issue

- In terms of energy fields, an environment with recent technological progression, like smart grid and machine-to-machine (M2M) infrastructure, has been making facilitation where he/she enables to aggregate valuable information.
- On the other hand, volume of information has increased rapidly; therefore, a high performance infrastructure such as Big Data is requested for computing enormous volume of information.
- Even if, that environment comes real, some issues are still remaining. Information in Big Data has been accumulated from proprietary forms of which convention are so variety in systems, languages, regions, and so on that it is difficult to use. It is need to use it by normal perspective by applying standard way.



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**BEMS: Building Energy Management System**

**HEMS: House Energy Management System**

### 2.2 The Distribution Systems Research Institute (DSRI)

DSRI (GS1Japan), a member organization of GS1, has been facilitating standardization of EDI and communication protocols since 1980's.

Since 2003, DSRI has been involved in the development of XML based EDI standard for Japanese Retail Industry along with 2 major retailers associations and other industry players.

In April 2007, a new EDI standard called Ryutsu Business Message Standards (Ryutsu BMS) was published. Ryutsu BMS defines business processes and messages between retailers and wholesalers/manufacturers.

For the promotion and maintenance of Ryutsu BMS, DSRI formed Supply Chain Standard Management & Promotion Council in April 2009 which consists of full members (industry associations) and supporting members (solution providers). As of July 2014, there are 50 full members and 187 supporting members. Owing to the activities of the Council, Ryutsu BMS is now gaining the status of a major EDI standard for Japanese retail industry.



Following documents that support implementation of Ryutsu BMS are available at the Council website, <http://www.dsri.jp/ryutsu-bms/> (Japanese only).

- Ryutsu BMS implementation guideline
- Ryutsu BMS operational guideline
- Ryutsu BMS XML Schema guideline
- Mapping Sheet template and sample
- Communication protocol users' guideline
- Certification Authority policy

### **2.3 Japan Electronics and Information Technology Industries Association (JEITA)**

JEITA is a new industry organization established in November 2000 by merging the Japan Electronic Industry Development Association (JEIDA) and Electronic Industries Association of Japan (EIAJ) to enter the 21st century. Its activities cover both the electronics and information technology (IT) fields. Within the JEITA, the EDI Center plays the role of promoting standardization which has been executing activities together with the vendors and buyers, focusing on the EIAJ-EDI Standards in order to exchange business transactions.

JEITA uses EIAJ-EDI Standard based on CII syntax rules, a domestic business protocol standard, developed by the Center for the Informatization of the Japan Information Processing Development Center.

The EIAJ-EDI Standard was established for promoting electronic ordering of materials in the electronic manufacturing industry, and has been revised as appropriate every two to three years. The latest version was issued in December 2001.

In December 2003, JEITA released "ECALGA (Electronic Commerce Alliance for Global Business Activities)" as EDI brand for the new era.

"ECALGA" is intended to widely offer the solutions to the changing needs of new EDI in the Electronic industry, through newly developed messages which are to reflect the real time exchange of a forecast and stock information. At the same time, "ECALGA" changes EIAJ-EDI Standard to the ebXML base. "ECALGA" seamlessly combines all the business processes among the enterprises in the various fields including, but not limited to, the business segment of planning, designing, development, production, distribution and sales.



## SECTION III –e-Readiness and e-Application -- eGovernment/ eBusiness Related PROJECT UPDATES

### 3.1 The Single Window System in Japan(NACCS)

#### 3.1.1 Nippon Automated Cargo and Port Consolidated System (NACCS)

In October 2008, the Government of Japan had carried out a reform concerning key operators of Japanese Single Window, i.e. NACCS as followings:

- i) Nippon Automated Cargo Clearance System, an independent administrative agency under the Ministry of Finance merged Port EDI system operated under the Ministry of Land, Transportation, and Infrastructure.
- ii) The agency was privatized and renamed to “Nippon Automated Cargo and Port Consolidated System Inc. Its abbreviation remains the same as it was, i.e. NACCS.
- iii) This reform was done with a view to promoting an efficient import/export related operation under the new generation Single Window of Japan.

#### 3.2.2 New Generation Single Window

In the course of Single Window development, trade related administrative systems have been integrated into NACCS in a phased manner.

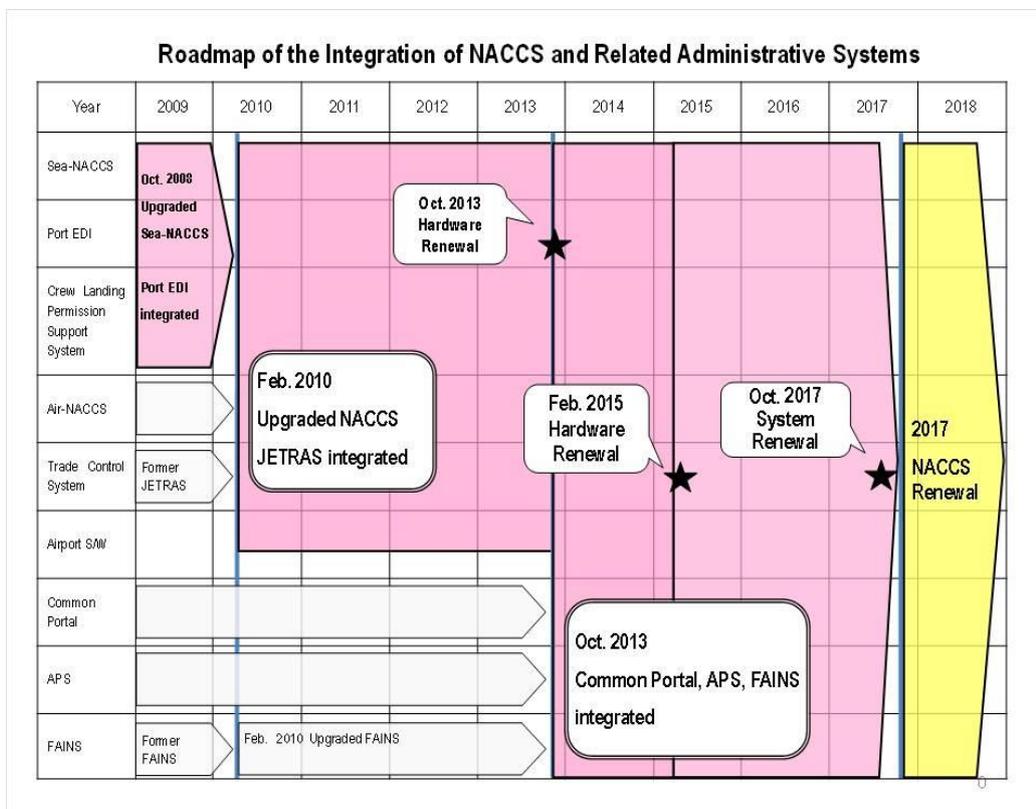
In February 2010, a number of import, export, emigration and immigration procedures other than customs were integrated into NACCS (see Table 1).

With the integration of quarantine systems in October 2013, NACCS becomes the single consolidated system which provides almost all the trade related administrative functions.

For the renewal of NACCS in October 2017, NACCS Center and relevant government agencies have started discussions concerning further development in Single Window.

Table 1

Procedure	Jurisdiction	Systems merged
Port Clearances (Sea)	MLIT	Port EDI
Immigration of crew	MOJ	Port EDI
Quarantine of crew	MHLW	Port EDI
Export Trade control	METI	JETRAS
Arrival/Departure notification at the airport	MOF-Customs	Air-NACCS
Immigration of passenger at the airport	MOJ	Manual operation
Quarantine of passenger at the airport	MHLF	Manual operation



MLIT: Ministry of Land, Infrastructure and Tourism  
 MOJ: Ministry of Justice  
 MHLW: Ministry of Health, Labor and Welfare  
 METI: Ministry of Economy, Trade and Industry  
 MOF: Ministry of Finance

### 3.2 Implementation of the Advance Filing Rules on Maritime Container Cargo Information

The advance Filing Rules require a vessel operator or a NVOCC(Non Vessel Operating Common Carrier) to electronically submit to Japan Customs information on maritime container cargoes to be loaded on a vessel intended to enter into a port in Japan, in principle no later than 24 hours before departure of the vessel from a port of loading.

(<http://www.customs.go.jp/english/summary/advance/index.htm>)



### Implementation of Advance Filing Rules on Maritime Container Cargo Information

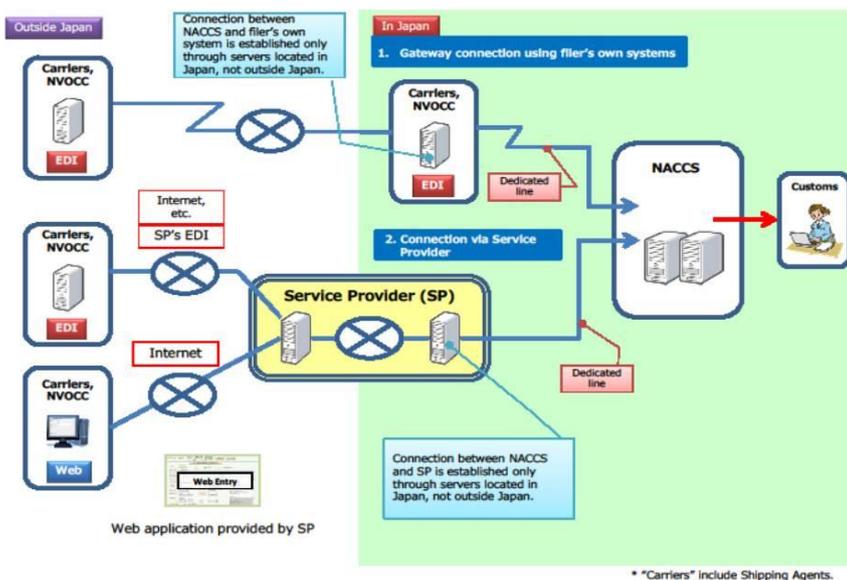
**• Advance Filing Rules Started as Scheduled & Running Smoothly.**

- NACCS Started Receiving Cargo Information from March 1, 2014.
- Filers are obliged to file cargo information for Japan Bound Container Cargoes Whose Deadline of Filing is On/After March 10, 2014.
- All the 18 Service Providers (incl. 6 PAA Members) Completed Connection Test by the Enforced Implementation.

1

	2013				2014			
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	
Operational Phases	Designing a detailed Operational Plan and preparing for its implementation				Implementation of AFR			
IT System	Design, Development, Test of operational programs		Connection / Operational Test with SP and Filers		Receiving cargo information			
Publicity to the relevant industries	Publicity of the AFR to the relevant industries							

#### Appendix 5 User Connectivity with NACCS (1)





## AFR Implementation : First Month Overview

### • Service Providers Network is Playing Pivotal Role in AFR Implementation.

- SPs Takes 88% of the Total Number of HB/L Filings.
- SPs Takes Care of 98% of NVOCC Filers Worldwide.

Share of SP (Number of Transaction)

Procedure Code	Transaction (Total)	Share of SP
AMR (MB/L)	291,023	44.0%
AHR (HB/L)	262,308	87.7%

Share of SP (Number of Filers)

Procedure Code	Filers (Total)	Share of SP
AMR (MB/L)	155	38.1%
AHR (HB/L)	3,473	97.6%

- **Relatively Small Number of AHR against AMR**  
 **There's Room to Further Expand SP Client Base.**

\* All the figures are from traffic record of initial one month (March 2014)

2

### 3.3 Container Logistics Information Service(COLINS)

(These pictures are quoted by presentation document provided by MITI for APEC in July 2012.)

Ministry of Land, Infrastructure, Transport and Tourism (MITI) developed and started operation in April 2010.

The function of COLIS is intended to be integrated to NACCS in 2019.

Participants of terminals are from Port of Tokyo, Kawasaki port, Yokohama port, Niigata port, Kobe port, Osaka port and Hakata port

#### Outline of the Container Logistics Information Service (Colins)

- The Container Logistics Information Service (Colins) is a membership-based information service via website; the related business concerns such as terminal operators, freight owners, maritime freight owners, forwarding agencies, etc. depending on this service only, may share the container logistics information.
- By sharing necessity container logistics information in real-time, the supply chain visibility is improved.
- MLIT has developed and operated from 2009.
- URL: <http://www.colins.ne.jp>

**OTraffic congestion view**  
The camera at the head of a port supplies live shots.

**OPermission of delivery container from CY**  
Information from the terminal system will be given on whether import containers can be carried out or not.

**OVessel schedule data**  
The information is on the movement of vessels, which comes from terminals port managers and AIS.

**OInquiry of gate working time**  
This is a bulletin board at each terminal to announce the terminal-opening hours.

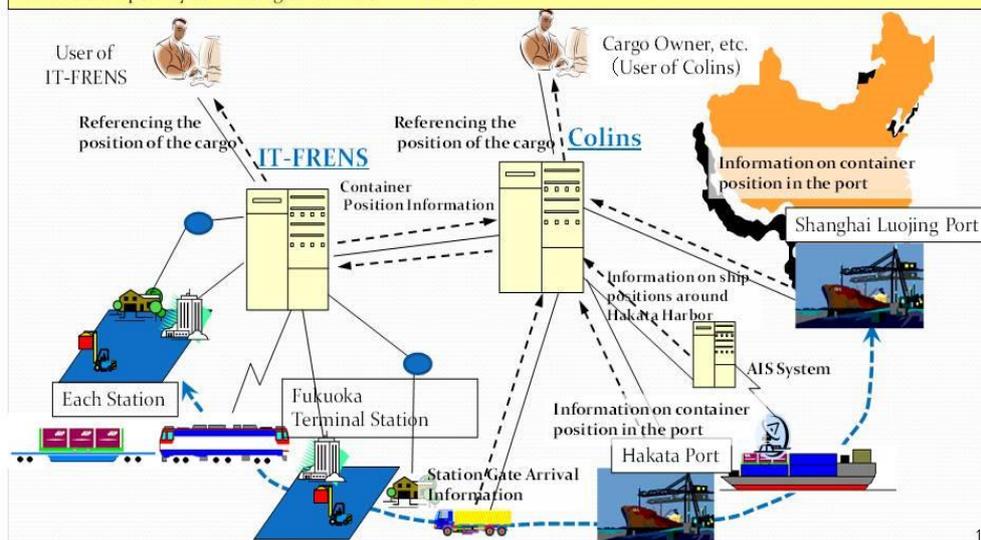
**OTracking of container**  
Display of freight locational information

### Function 5 of Colins: Freight tracking system

- Colins is basically directed to container logistics information in harbors. However, visualization of logistics information is desired including the land transport from the viewpoint of supply chain management.
- Then, the railway container positioning information system owned by Japan Freight Railway Company (IT-FRENS) and Colins were connected as systems and were operated from May 2012.

#### Image of the System Partnership

Cargo owners and chartering brokers can trace their cargos from harbors in foreign countries to domestic harbors to railroad transport by connecting to Colins or IT-FRENS.



The railway container positioning information system owned by Japan Freight Company (IT-FRENS) & COLINS were connected and started operation in May 2012.

### 3.4 Northeast Asia Logistic Information Service Network (NEAL-NET)



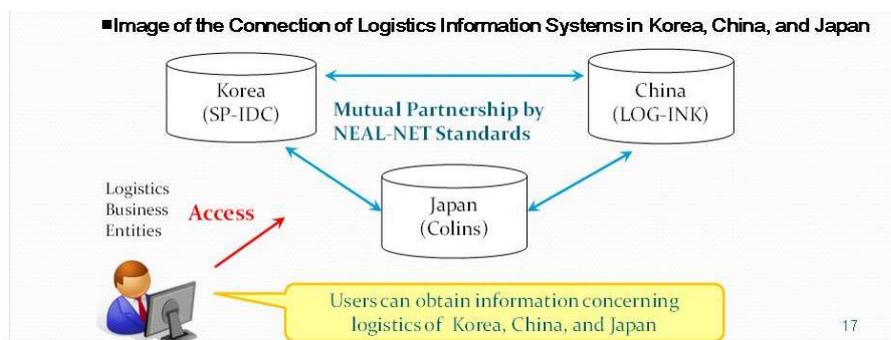
### Future work of Colins

#### (share container status information with other countries)

- Aimed at promoting the exchange and sharing of logistics information and improving the capacity and efficiency of logistic services in Northeast Asia, "Northeast Asia Logistic Information Service Network (NEAL-NET)" was founded under the framework of China-Japan-Korea ministerial conference on transport and logistics.

- China, Japan and Korea is undergoing a pilot project to share port-related logistics information.

- China, Japan and Korea will endeavor to strengthen and improve port information sharing services with a view to establishing an effective logistics information service network between China, Japan and Korea through extending coverage ports and gradually expanding the scope of logistics information.



Electric Product Code Information Service(EPCIS), International standard technology supported by GS1, is basically adopted for mutual interface among above three systems, COLINS in Japan, SP-IDC in Korea and LOG-INK in China.

NEAL-NET became operational in August 2014 then an approach to ASEAN and EU countries to join it , is expected.

### 3.4 Financial Sector

#### 3.4.1 Zengin Data Telecommunications System (Zengin System)

Since December 1996, a function for financial EDI has been available in Zengin System, an electronic payment system mainly used for domestic credit transfer. Payer firms can attach a twenty-digit matching key, with which beneficiary firms can reconcile commercial and payment date, to payment instructions sent through Zengin System.

More recently, sixth-generation Zengin System, which has been in operation since November 14, 2011 accepts XML/ISO20022 format as an option.

(Please refer to the figure 3.1)

#### 3.4.2 Bank of Japan Financial Network System (BOJ-Net)

The BOJ will adopt ISO20022 message formats for some transactions under the new BOJ-NET, which already started operating for some areas in January 2014 and will start operating the remaining areas in the autumn of 2015.



(Please refer to the figure 3.2.)

### 3.4.3 Others

MT103 Remit, which is a message type of SWIFT's FIN for customer payment and has the financial EDI capability, is widely used in Japanese banks. By using MT103 Remit, payers can attach EDI data of up to 9,000 digits and of any type of formats including EDIFACT to a payment instruction. However, Japanese banks use SWIFT messages mainly in cross-border transactions, partly because the protocol and formats for most Japanese payment systems are incompatible with those for SWIFT.

Turning to C2F area, electronic methods to transfer money between individuals' bank accounts are widely used in Japan. According to a survey conducted in March 2012, funds transfer services are provided through the Internet by 89.6 percent of the 469 respondent banks. In addition, services using mobile terminals (e.g., mobile phones) are provided by 86.1 percent of the respondents.

Figure 3.1 Zengin System

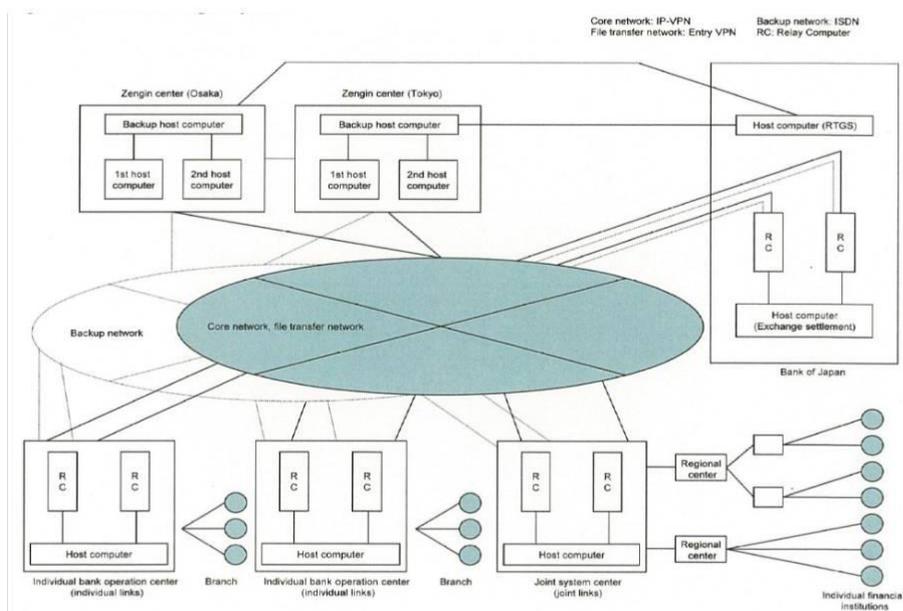
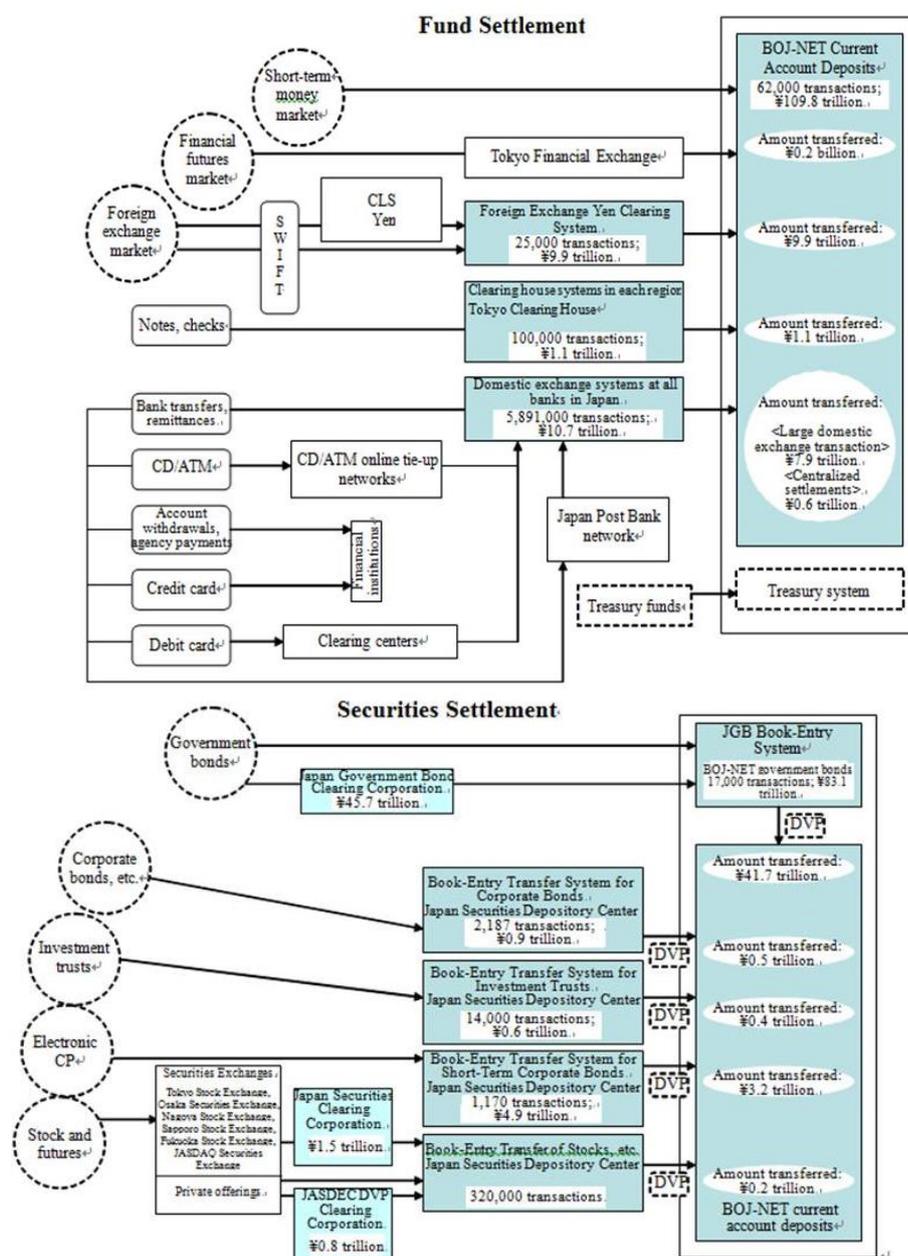


Figure 3.2 Role of BOJ-NET in Japan's Settlement System



<sup>4)</sup> Note: Figures represent the average of a single day of operations during 2012. Clearing Corporation figures represent the amount of assumed liability.  
Source: Bank of Japan's "Developments in Major Payment and Settlement Systems" and Japan Security depository Center's "Statistics Data"<sup>4)</sup>

### 3.5 The e-Signature and Authentication Promotion

The enforcement of the Act on Electronic Signatures and Certification Business (e-Signature Act) beginning in 2001, created a legal framework that allowed electronic signatures to be used in the same fashion as handwritten signatures and seals.

In 2003, JIPDEC (Japan Information Processing Development Center) was designated the official body by the e-Signature Act. JIPDEC investigates whether or not the equipment of specific certification business and their implementation methods conform to the standards established by the e-Signature Act.

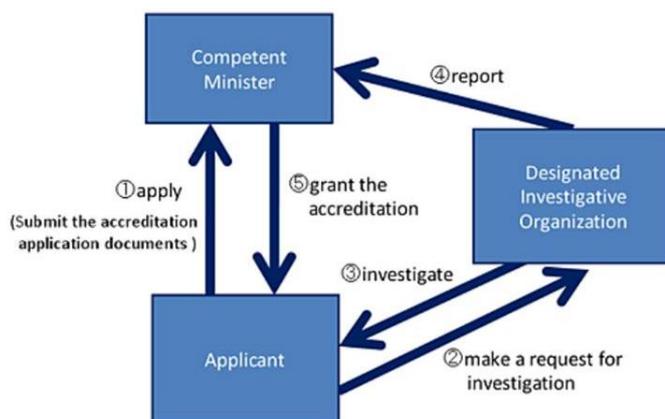


Fig. The Process for Investigation on the Accreditation of Specified Certification Business

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**Electronic Signatures are being used more and more**

In recent years, electronic signatures are being used and ore in various aspects of life cycle of a company, such as in the certification for articles of incorporation, bidding, contracts and agreements, patent applications and tax payment.

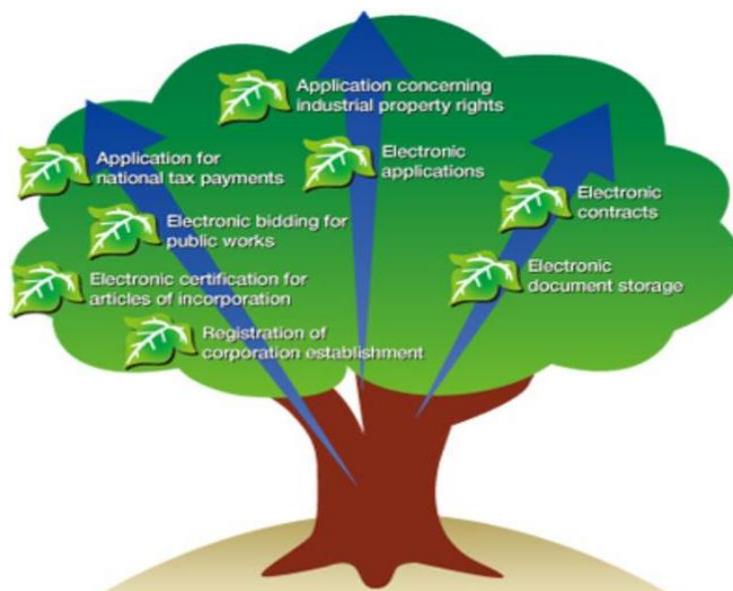


Fig. The various aspects of using e-signatures in a life cycle of a company

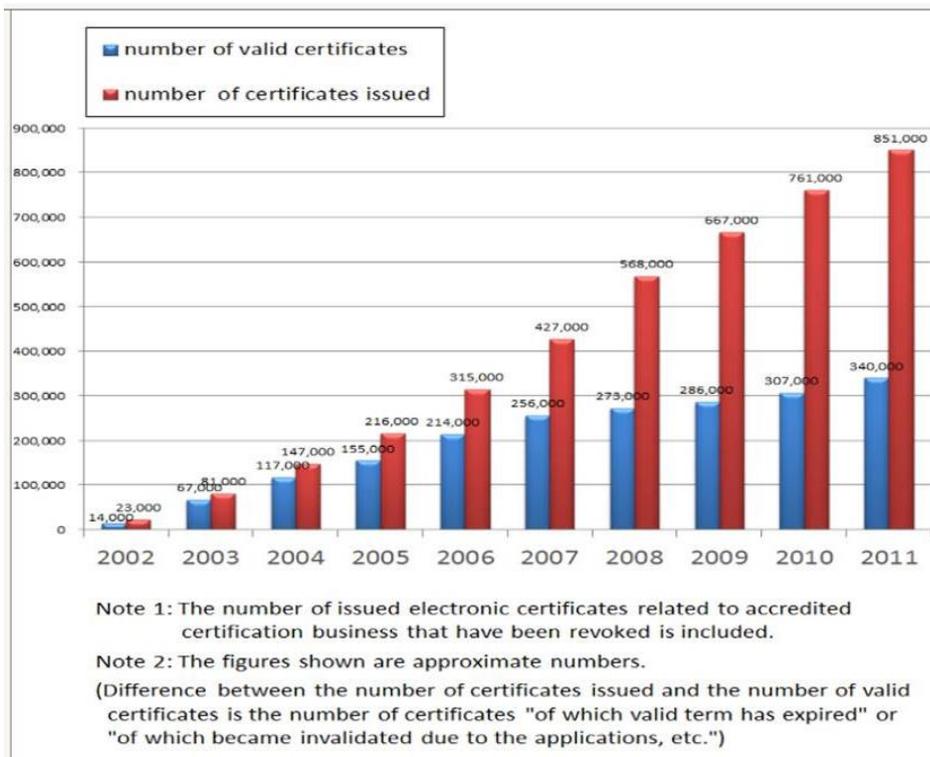


*2014 AFACT Year Book*  
*Asia Pacific Council for Trade Facilitation and Electronic Business*

The number of electronic certificates related to accredited certification business issued under the e-Signature Act amounts to more than 850,000 in 2011.

Also, many electronic certificates are issued for various purposes apart from accredited certification business.

Electronic documents with e-signatures can now be regarded equivalent to sealed or signed documents by the Act on Electronic Signatures and Certification Business (generally known as the e-Signature Act.)



Source of information: JIPDEC official site

<http://www.jipdec.or.jp/esac/eng/index.html>



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## **Country Progress Report**

### **Korea**

**32nd AFACT Plenary**  
**Bangkok, Thailand**  
**November 25-27, 2014**

**nipa** *National IT Industry Promotion Agency*



## SECTION I - GENERAL CONDITION UPDATE

### 1.1 Overall condition of e-Business

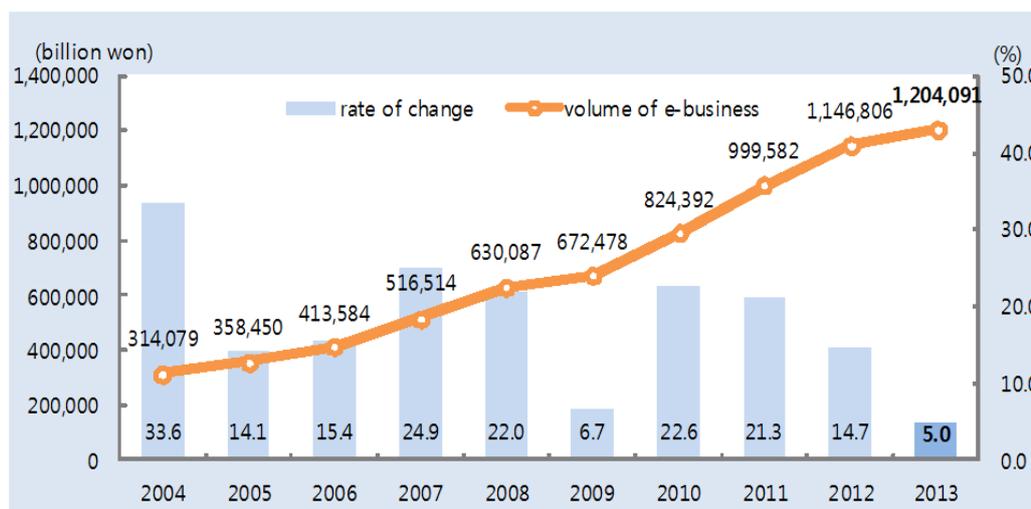


Figure 1. The growth of e-business in Korea (Total)

The total volume of e-business in 2013 is about \$1.2 trillion which increased 5.0% compared with it in 2012(\$1.1 trillion), and overall the growth of volume is gradually slowing down.

(billion won, %)

Section	2012		2013 <sup>P</sup>		Volume of e-business (compared with 2012)	
	Amount	Proportion	Amount	Proportion	Amount of Increase	Percentage of Increase
Total Volume	1,146,806	100.0	1,204,091	100.0	57,285	5.0
B2B <sup>1)</sup>	1,051,162	91.7	1,095,696	91.0	44,534	4.2
B2G <sup>2)</sup>	62,478	5.4	70,649	5.9	8,171	13.1
B2C	21,160	1.8	24,331	2.0	3,172	15.0
C2C	12,006	1.0	13,414	1.1	1,408	11.7

Annotate 1) The turnover of Social Commerce has been included in cyber shopping section since 2012

Annotate 2) The turnover of B2B/B2G in cyber shopping section is partially included in the turnover of B2B/B2G section

According to the latest research by KOSTAT, B2G and B2C transaction are increased over 10% compared with the last year. However, B2B transaction still takes a lot of proportion, about 90%, in the total volume of e-business.

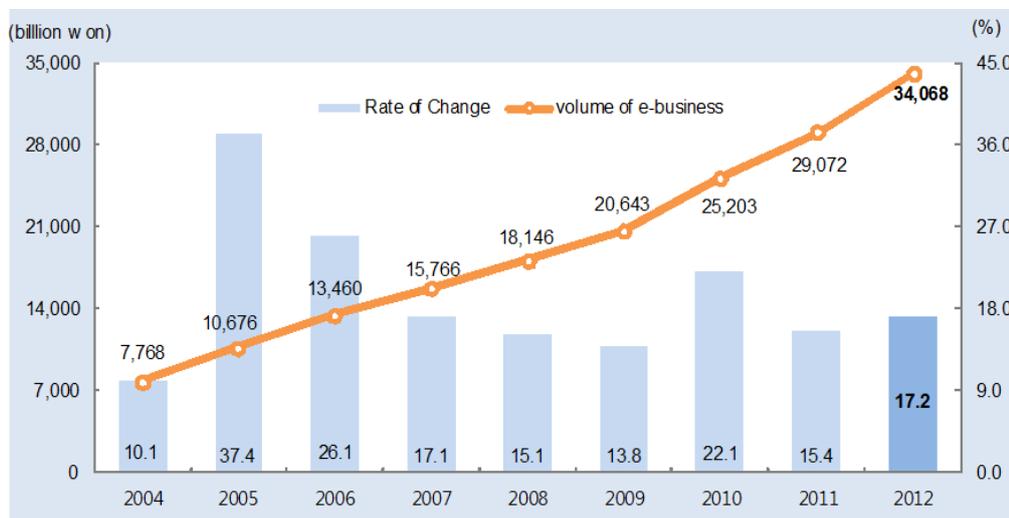


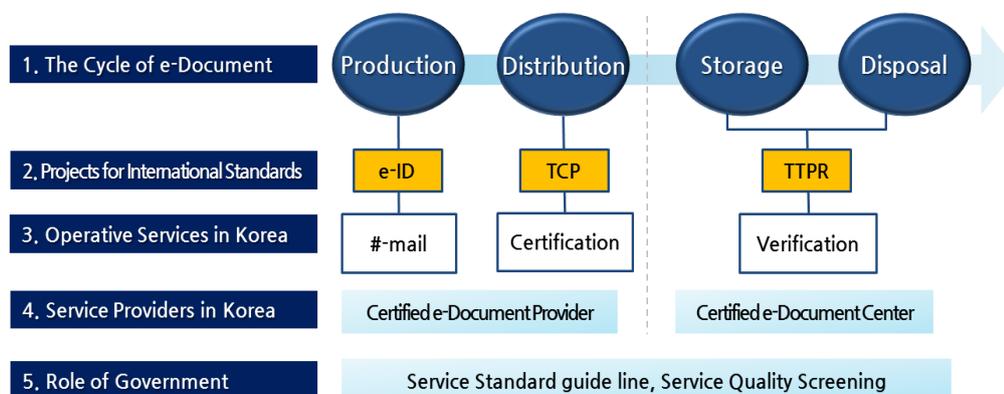
Figure 2. The growth of online shopping market in Korea (B2C, C2C)

Online shopping industry has been increased steadily, and it has been mainly driven by the significant growth of mobile shopping platforms and personal smart devices like smart phones or tablet PCs.

## 1.2 Standards development driven by government

In 2013 in Korea, the E-document and electronic transaction standards & systems that have been developed continuously by the government have been evenly diffused. #mail, the development of which was driven by the National IT Industry Promotion Agency (NIPA), has been broadening its scope in the E-document distribution area based on its dependability and power of legal proof, driven by public agencies and large businesses. Also, about 10 certified E-document centers that were established in the public and private sector have dramatically reduced the costs for enterprises to store and manage E-documents, and helped businesses to promote environment-friendly management.

In particular, NIPA has provided businesses that are involved in domestic certified E-document centers with the opportunity to globalize by making the domestic certified e-document center technology an international standard in ISO TC46/SC11 in 2012. Furthermore, work is underway to make #mail an international standard in ISO TC154.



- UN/CEFACT : e-ID (e-identity for cross borders)
- ISO TC154 : TCP (Trusted Communication Platform for Electronic Document)
- ISO TC46/SC11 : TTPR (Trusted Third Party Repository)

The delivery form, which is essential to confirming cargo delivery in the logistics industry, has been converted into a form that can be processed through electronic methods called the electronic delivery form, and the development of an electronic delivery form standard is in progress, promoted by the Digital Content Association and major logistics transportation companies, by utilizing E-document development guidance to apply this to the logistics industry.

Currently all domestic corporations and individual businesses are doing their income tax return using electronic tax invoices under the law related to electronic tax invoices, which has been enforced since 2010. Electronic tax invoices enhance the transparency of business transactions, enable the fast and accurate processing of tax invoices related work and reduce the tax compliance cost of business related to issuing paper tax invoices. When businesses are not able to build electronic tax invoices by themselves, they can use the E-taxation service of National Tax Service or get help from an ASP (Application Service Provider) company. Currently, a fair number of ASP businesses are working to achieve early entry to the Electronic tax invoices market.

The Ministry of Security and Public Administration developed and finished the ebXML based government E-document distribution support center in 2009, and has actively used this in sending and receiving administrative support E-documents. In addition, the work of developing diverse and new services is underway. The Ministry of Security and Public Administration has great interest in building and standardizing a Cloud system that can be used in the private and public sector, and it is making continuous efforts to apply this. Also, OASIS-affiliated organizations are continuously developing the standard to evaluate and measure the quality criteria of electronic transaction service. Applications of the E-government standard framework are continuously increasing, and many businesses and government organizations are selecting it as a primary framework to build the software.



Currently, the E-document and electronic transaction standardization & system in Korea is led by the government, and it is spreading at a relatively rapid rate as private demand and awareness of the system grow. Also, the development of E-documents and the Electronic transaction system are progressing effectively in the private and the public sector, and its scope of application is rapidly spreading. The international standardization of technology developed domestically is relative well underway, including through ISO, UN/CEFACT, and OASIS.



## SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT

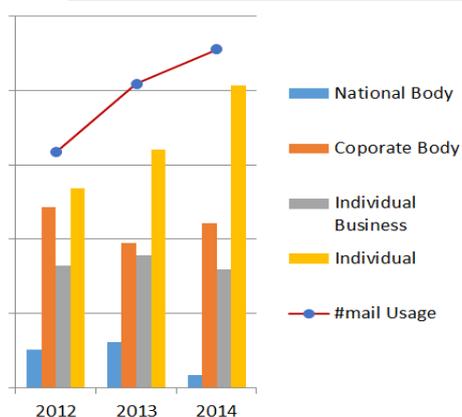
### 2.1 # Mail

NIPA built an E-document distribution infrastructure that can secure legal force, and the certified E-address based #mail service has been in force since December 2011. #mail is an email service that checks whether the sender and receiver have sent, received and viewed a message or not and stores distribution information in NIPA, and the certified E-address is the E-mail address that legally guarantees user authentication, checking sending-receiving-viewing, denial prevention, and certification of contents. Documents and contents sent and received through #mail have legally binding force, similar to documents sent and received through registered mail. Legally important documents such as official documents and agreements can be delivered safely through #mail.

Businesses and individuals can use the #mail service after registering a certified E-address. A certified E-document intermediary is the E-document distribution service provider that carries out the sending/receipt of E-documents (all sorts of certifications, bills, official documents etc.) on behalf of a user using #mail, and a business or individual can utilize the E-document distribution service of an E-document intermediary. NIPA makes the process legally binding by retaining the distribution information (sending-receiving-viewing) of sent-received E-documents and issuing distribution certificates.

Certified E-addresses use a standardized address system, and are composed of a combination of # (sharp), Korean/English characters and numbers, enabling them to be memorized and used easily. E-addresses can be used as a matter of convenience such as work-department-function unit or name, and actual or false name of users such as businesses-individuals can be used as registrant names.

Account + # + Registration Name. Characteristic Value



Thus far, NIPA has developed 4 types of Distribution Standard Technologies to verify E-document distribution technically, and verification has been performed by promoting the pilot implementation of a distribution hub and the pilot business of a business model. Also, official documents, electronic contracts, electronic subscription forms, and all types of certificates and bills are being serviced together with private providers, and a system link between the government's E-document distribution center and #mail is planned to support the sending



and receiving official documents and civil services documents between the private sector (business-individual) and public agencies. #mail, the legal force of which has been recognized based on the revision to the Basic Act for Electronic Commerce made in June 2012, is continuously expanding its scope of application, and is being promoted to applications such as traffic citation fine/ fine notice and reserve force notice as a pilot project.

Also, the movement of companies toward utilizing #mail for sending and receiving electronic tax invoices has greatly increased in reference to electronic tax invoices. Typical #mail intermediary service providers are promoting the utilization of #mail for sending and receiving electronic tax invoices, or are considering cooperation with other companies.

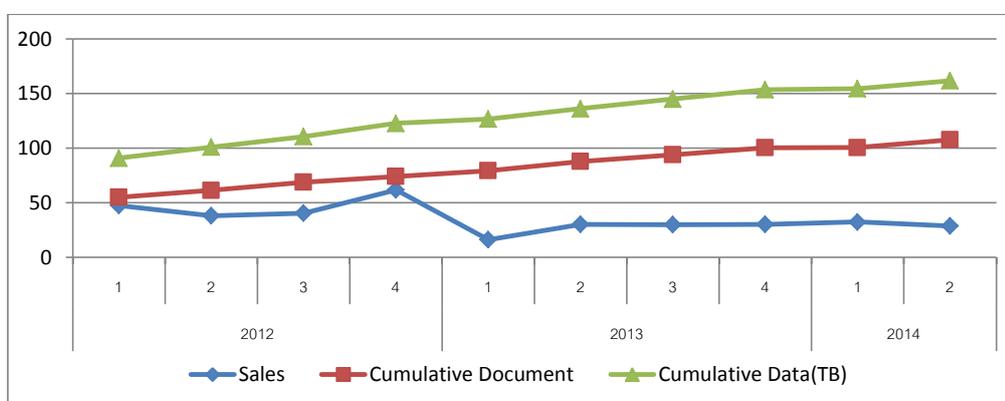
## **2.2 Certified E-document Center**

A certified E-document Center is a trusted third party that stores e-documents safely to stimulate the use of e-documents, and verifies the contents of e-documents as well as the status of sending and receiving. The certified e-document center was introduced in March 2005 with the revision of the Basic Act for Electronic Commerce, and seven appointed service providers are in operation currently, the first of which was appointed in February 2007. Major services of the certified e-document center are an e-document storage service, a sending-receiving service that delivers the stored e-document to a designated sender-receiver and a certification service that confirms the authenticity of the e-documents. When we look at the effects that followed the introduction of the certified e-document center, direct effects included a consolidation of the competitive power of companies through business process innovation and cost reduction related to paper, the promotion of a low carbon green growth environment through the use of e-documents and the creation of new markets through the expansion of the e-document business market, while indirect effects included an improvement of national transparency through the improvement of e-document credibility and IT Compliance upgradability.

The designation criteria for service providers running certified e-document centers are decided strictly according to the Basic Act for Electronic Commerce enforcement ordinance, and stability, credibility and maintenance of security level are considered when storing e-documents by dividing the examination of the Ministry of Science, ICT and future planning into labour-technology ability, financial ability and facility and equipment. The certified e-document center designation procedure for service providers consists of five steps: submitting a designation application form, document screening, technology screening, deliberation and decision. A decision on designation is made and announced within six months from the day the designation application form is submitted.



Currently, there are eight service providers, which are KTNET, LG CNS, Hana INS, Upostbank, Coscom, KICA and Duzon Bizon, and despite the initial interest and expectations of the business community the market has not been very active, even though it has been 6 years since the first certified e-document center was established. To revitalize the market for certified e-document centers, political measures such as improvement of legal effectiveness through expansion of the legal effectiveness limit, inducement of storage cost actualization through graded application of security level, development of a social consensus on the necessity of e-documents and increased use of certified e-document centers through pilot projects are needed.



Even though the market for certified e-document centers is currently depressed, the outlook of the market is bright because the government's will to establish the system is strong, as it has been revising and adjusting related laws and systems, introducing an electronic lawsuit system, making the use of electronic tax invoices obligatory in 2011, and making the standard of certified e-document centers meet ISO standards. The service and system composition of certified e-document centers is shown in figure 2.

The Services that certified E-document centers provide include storage service, sending and receiving service, and verification service of E-documents. The storage service is a service that safely stores registered E-documents without tampering, and the sending-receiving service is the service that delivers e-documents through the network. The verification service is the service that verifies the authenticity of stored e-documents at a certified e-document center.

### 2.2.1. Storage Service

The core business of the certified e-document centers, this is the service that stores registered e-documents safely at a certified e-document center when a user registers



the e-document. Its purpose is to store documents from creation to abrogation, and it fulfills a variety of functions, such as conversion of documents, registration-saving of documents, retrieval-viewing of documents, search of documents, version management of documents, preservation term of documents, transfer of documents, abrogation of documents, process management of documents and system management of documents.

### **2.2.2. Sending-Receiving Service**

This is a service that distributes stored documents at a certified e-document center or sends and receives submitted documents for distribution only to designated receivers accurately and safely without any loss or tampering in the sending and receiving process. It fulfills functions such as issuing documents, sending-receiving management, network security, linking system to related service, encryption, and tampering prevention.

### **2.2.3. Verification Service**

This is the service that verifies the authenticity of a stored e-document at a certified e-document center from the position of a third party. Checking who, when, to whom, and with what contents an e-document was sent can be done afterward. It serves the function of verification of registration, verification of issuing, verification of transfer and abrogation, verification of originality, and issuing certification.

The services of the certified e-document center that is in charge of storing, sending-receiving and verifying can be utilized in various fields of industry such as customer related records and verification work of a company and credit application and subscription of financial institutions. (Refer to Figure 3).

Currently, many businesses are storing e-documents by creating them using a self-business process system or EDMS(Electronic Document Management System), and various application forms, subscription documents and contracts that are processed with paper documents are being computer processed by linking the self-business process system and EDMS, but the service of the certified e-document center is expected to be expanded to all fields of industry thanks to the continuous revision of the related laws and systems after the introduction of a certified e-document center in 2005, as well as the low carbon green growth policy that the government has been promoting recently.



Applied field		Main applied document
Financial	Bank	Credit card application form, Banking transactions applications form, Documents provided with a loan application
	Credit Card	Application form, Affiliated store application form, Sales statement,
	Insurance	Insurance application form, Insurance claim form, Cancel/Refund documents
	Stock	Stock transactions application form, Futures contract documents
Public Communication	Public	Electronic application, Electronic procurement, Electronic tax payment, Electronic bidding, Licensing business
	Communication	Application form, Call record
Production	Medical	Medical record, Medical related to medical insurance,
	Production	Tax invoices, Transaction receipt, Contract, Blueprint, Intellectual property
	Distribution	Order sheet, Transaction statement, Proof of delivery

Figure 3. Applied Field of Certified E-document Center

### 2.3 Civil Services 24 Hours

The Ministry of Security and Public Administration is making life more convenient for citizens through its civil services portal called Civil Services 24. Civil Services 24 is a service that allows any citizen to apply for, retrieve and view needed civil services over the internet, 24 hours a day and 365 days a year, from anywhere and without visiting an administrative agency. Any citizen residing in Korea can use the service after a simple registration process. Civil Services 24 offers three types of service.

- Guidance for civil services: Provides information on processing agency, processing time, fee, required documents and contact of all civil services defined in law. (5000 types of services, such as moving-in notification)
- Internet viewing service: Service that allows you to view requested information on screen (22 types of services, such as individual housing price confirmation)
- Internet issuing civil service: Required civil service can be viewed on screen and can be printed. (1,208 types of services, such as abstract or copy of resident registration)

After the beginning (2002) of Civil Service 24, it was found that 1.5 trillion per year in financial-social costs, such as time cost and transportation cost, was saved when we convert the financial effect, as well as a reduction of 22 thousand tons of carbon emission due to the reduction of traffic and paper usage. Also, as a world-class online government civil service portal site with 10 million users, it was awarded the Excellence Award of the U.N. Public Service Awards (PSA: Public Service Awards), and was selected as the first "BEST10 selected by citizens" among outcomes of the Prime Minister's office regulatory reform in 2011, and was also selected by citizens



as the best policy among leading excellent policies of the Ministry of Security and Public Administration. In addition, it obtained high marks on the satisfaction survey that is conducted every year.



Figure 4. Main Outcome of Civil Service 24

## 2.4 Electronic Delivery Form

The requirements of distribution authorities are becoming more diversified as the globalization of distribution, a core support of industry, has progressed, and requirements for the overall information flow of domestic distribution and international distribution are increasing. In addition, the quality requirements for distribution services are increasing as well. While the combined transportation delivery type that is linked to global distribution is increasing, the storage function (container yard, terminal, and warehouse) is becoming stronger than simple transportation, and problems such as complex processes, the participation of various principal agents, different information systems and a lack of standardized information are on the rise.

To resolve this, the first challenge is to standardize distribution information to enhance the distribution industry and strengthen global competitiveness. Distribution informatization in the international distribution (trade) field is realized to some degree through international cooperation, but informatization to link domestic distribution is still insufficient. Currently, interest in and effort towards Supply Chain Management (SCM: Supply Chain Management) or Supply Chain integration to manage distribution (circulation) activity between related main agents in distribution (circulation) management is being realized extensively, with developed countries at the center. It is necessary to build a system that fulfills the applicable functions in order to perform Supply Chain management or Supply Chain Integration smoothly, and distribution standardization is essentially required as well, as efforts to standardize “delivery form” are underway as a core prerequisite to satisfy various requirements in the complex environment related to trade between countries.

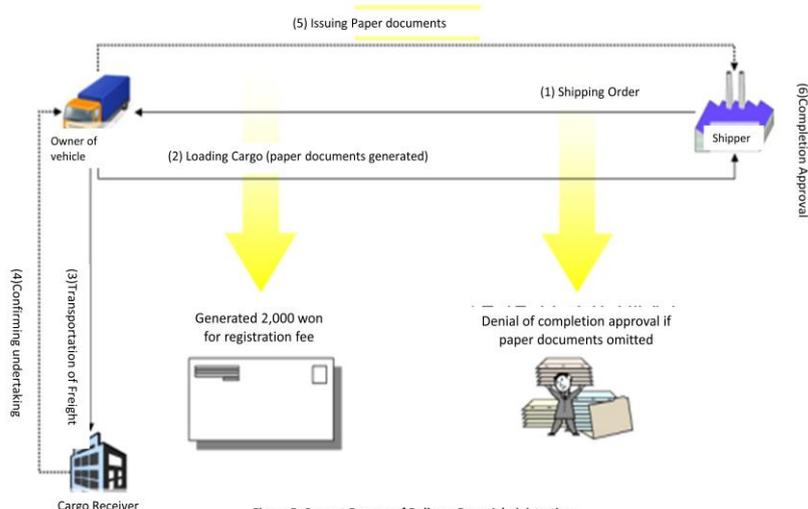


Figure 5. Current Process of Delivery From Administration

The delivery form, as a core document that is commonly used as ‘waybill’ or ‘cargo receipt,’ fulfills various functions in the distribution handling process, such as verification of the delivery of cargo from sender to receiver, document proof of delivery for transport provider and receipt. The information process system in distribution handling is already being accelerated for core stakeholders (sender, receiver), but verification process at the site of transportation and delivery of cargo is done through analog (non-digital) methods. The delivery form, which is a core method of verifying delivery of cargo, has been converted to an ‘electronic delivery form’ to make electronic processing possible, and it is a core base medium to process a series of flow from sender to receiver quickly with IT.

The process of the stakeholders, such as the company that uses distribution, the company that specializes in distribution and the freight service provider, has been clarified through the standardization of the electronic delivery form, and the form has become a base for tracking cargo in real time, which is the purpose of distribution upgradability.

Tracking the flow of delivered cargo is being emphasized as a highly essential factor not only for the sender and the receiver but also for all main agents related to cargo transportation, because many main agents are involved in cargo delivery in Multi-Modal Transport. However, many difficulties exist in tracking cargo since the information system that various distribution main agents have is not a standardized information system.

Standardization of the electronic delivery form is a basic precondition for clearly understanding the flow of cargo in a multi-modal transport system in which various



main agents participate. Currently, network service providers and distribution service providers are trying their best to complete the standardization of electronic delivery forms by 2013, with e-document association as its center.

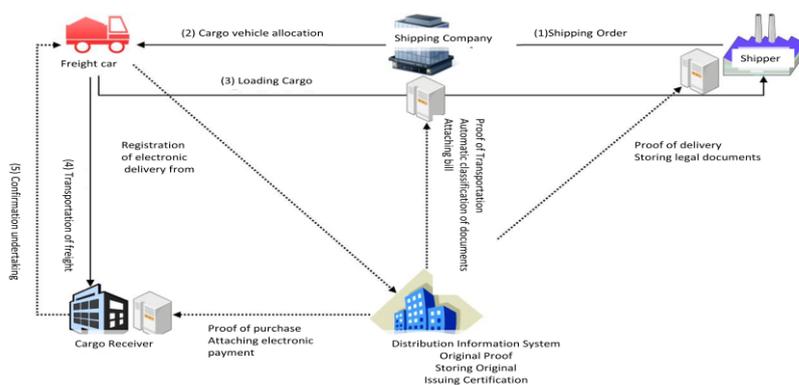


Figure 6. B2B Electronic Delivery form application Process of Land Distribution

## 2.5 Government E-document Distribution Support Center

The Ministry of Security and Public Administration is providing support in linking service between the e-document distribution system and administrative information work system and intermediary service that distributes sending-receiving of official documents for administrative agencies and public agencies electronically with ebXML base to digitize all document processes. The targeted agencies to use the government e-document distribution service include the central administrative agency (agency directly responsible to the president and the prime minister) and affiliated agencies, agencies of local governments and the military, the legislative branch, judicial branch, constitutional court and the national election commission. Currently, e-document distribution is being implemented between 1280 agencies, including the central administrative agency, cities/provinces, cities/districts/boroughs and educational agency, and 69 administrative systems are linked, including the integrated procurement system (G2B), digital budget accounting system, comprehensive administration information systems of cities/districts/boroughs and administration information disclosure system.

Government e-document distribution service is built on an intermediary/link system to receive e-documents sent from each agency and to resend or distribute them to their final destination. Intermediary systems such as administrative agency, public agency and educational agency (elementary, middle school, high school and university) distribute the sending/receiving documents from administrative agency and public agency for the digitization of all document processes. The linking system is the



service that links administrative business information between the e-document system (or On-Nara BPS system) and the administrative information system, and it is used at administrative agencies.

The administrative standard code and authentication certificate for the e-document system (server) from each agency have to be issued in advance to use the intermediary system, and the 'intermediary module' that is provided by the government e-document distribution support center has to be loaded in each e-document system. Also, tracking flow of intermediary document and intermediary status of document can be retrieved in the central management service.

'Link module' that is provided by government e-document distribution support center has to be loaded in each e-document system/administrative information system to use the link system.

Types of link method by usage are as follows.

- Electronic payment link: Interlocking the administrative information of the administrative information system with the electronic payment function of the e-document system
- E-document link: Sharing document information, payment information and document ledger information produced in the e-document system with the administrative information system

Types of link method by access mode are as follows.

- Center link method: method via link server of government e-document distribution support center (possible to retrieve in central management service)
- Direct link method: Directly link administrative information system of applicable agency to the e-document system

The main functions of the link/intermediary module are as follows.

- Support e-document distribution between the e-government integrated network and agencies that use other outside networks  
Documents sent from sending agency are delivered to receiving agency through the verification of receiver information and the routing process at the government e-document distribution support center
- Provide multi-processing function for plural recipients
- Electronic signature verification and encryption in sending-receiving documents
- Provide automatic resend function when transmission fails, and prevent duplicate receipt
- Record information such as document information, sending-receiving and fault history



The main functions of the central management system are as follows.

- Tracking distribution status of sending-receiving e-document in real time
- Check whether or not there is a fault when fault occurs in document distribution
- Provide link-intermediary document distribution statistics of each agency by condition and period of document
- Provide statistics for fault document, by fault condition
- Support Help Desk such as announcement, reference room and Q & A

E-document box system installs document box at the government e-document distribution support center for electronic document distribution between agencies that use document distribution service for the cases when no e-document system exists or the standard of the e-document system is not suitable for the e-document distribution standard, and it is a system that distributes e-documents through this.

The main functions of this system are as follows.

- Prepare and manage sending identification division to send document
- Provide sending-receiving-applying document box management function
- Provide usage application function to use electronic document box
- Provide management function for overall system such as authority, menu
- Provide intermediary function between electronic document box and e-document distribution system
- Provide processing function of documents sent from intermediary module to electronic document box
- Provide function to manage user information and information of affiliated agencies or processing departments
- Provide function to manage agencies that use electronic document box or processing departments and users that belong to the agency

Delivery verification system manages evidence record for sending and receipt of intermediary documents distributed within the government e-document distribution support center and on this basis, the system provides an accurate, objective standard of judgment for distribution by issuing and verifying a delivery verification certificate. This is used in administrative agencies, public agencies and education agencies (except for agencies that use the electronic document box). The delivery verification certificate issuing function and the delivery verification certificate verifying function are the main functions.



## **2.6 e-Procurement (G2B)**

The common business of all government ministries, the procurement business, is a field that greatly requires digitization, as it is document-oriented and is done by manual work. The procurement business can be digitized to provide integrated service by utilizing a single system jointly, increasing investment efficiency. It was promoted as one of the 11<sup>th</sup> projects of e-government based on the e-procurement system of procurement agencies, and its service was started (with a total budget of 26.1 billion won) in October 2002.

E-procurement was started with the electronic exchange of procurement documents in 1997 at a procurement agency, a specialized agency for procurement service. In 1998, an internet shopping mall was launched for common, repetitive purchase items of various government agencies, and in 2001, an electronic bidding service to support self-procurement of demanding agencies was opened. Also, in the same year, the e-procurement system was completed by building an electronic warranty • electronic payment system.

Nara market was established (October, 2002) as the 11<sup>th</sup> e-government project to expand the e-procurement system of procurement agencies to all public sectors. Nara market has been developed as extensive system that can be used by all agencies to prevent duplicate development of the same systems by each agency.

The participatory government proceeded with the project to upgrade the e-procurement service to suit the Ubiquitous environment with the consumer at the center, and systems such as customer oriented information service with CRM base, operation of web call center(2004), information search and joining bidding through PDA and mobile service(2005) were built.

The main functions of Nara market are that all steps of procurement, including business registration, bidding, contract and payment of purchase price, can be processed on the internet, and the procurement company can perform e-procurement by connecting to Nara market through the internet, without a separate system. Also, all bidding information of the demanding agency is announced, and it functions as a single public procurement window that enables participation in bidding by any agency with just a one-time registration in Nara market. It provides a One-Stop service for procurement by linking to the systems of 77 agencies, such as the Ministry of Security and Public Administration, financial institutions, related associations, and enables the submission of documents such as business license, local • cerification of full payment of national tax, warranty and qualification screening documents that have to be submitted repeatedly during bidding for a contract can be omitted.

Currently, 35 thousand demanding agencies and 150 thousand companies are using



the Nara market, 100 thousand people visit the Nara market and 100 thousand documents are exchanged online per day. In terms of amounts, transactions of 43 trillion won per year have been generated, including 24 trillion won for electronic bidding, 7 trillion won for shopping mall and 12 trillion won in other categories (private collective contract executed by procurement agency, turnkey contract, etc.).

The Nara market opens all information, such as the result of bidding and the successful bid, to the public in real time, which significantly improves the transparency of procurement administration, and has reduced face-to-face contact through online business processes. Also, procurement transaction costs were reduced by 4.5 trillion won per year, 4 trillion won (90%) of which was achieved through business cost-cutting due to the reduction of visits to demanding agencies and document submission. As a result, responses to Nara market have been favorable at home and abroad. It received the following evaluations from international organizations.

◇ UN:

- 1 ) Acknowledged innovative outcome of the Nara market through e-procurement, reward 'public service reward'(2003.6)
- 2 ) Selected Nara market e-procurement as 'Best Practice Model'(204.11)
- 3 ) Applied the electronic bidding procedure of Nara market as an international standard (2005.3)

◇ OECD: Information ripple effects are great, and 'it is at the stage where no more improvement is required' (2004.5)

◇ British Standard Institution: Reward IT service operation suitability ISO 15000 certification (2005.11)

◇ World information technology service alliance: Selected Nara market as an innovative example in public sector IT, given 'Global IT Excellence Award' (2006.5)



## **SECTION III –e-Readiness and e-Application -- eGovernment/ eBusiness RELATED PROJECT UPDATES**

### **3.1 e-Government**

The Ministry of Security and Public Administration developed and completed the E-government framework in 2010 and distributed it to the private sector free of charge. Thus far, it has been applied to a total of 390 public-private informatization projects, such as leading national portals and business competitiveness support (August 2013 - present), and the number of businesses and agencies that use it is increasing rapidly due to the advantages it offers, such as relieving specific business dependency, reducing the development period and enabling the expansion of voluntary application. Standard Framework training has been completed by a total of 4,230 people thus far, and the standard framework has been downloaded 291 thousand times since its introduction in June 2009.

Given this growth trend, the E-government Standard Framework was given the “Excellence Award” at the “2009 Korea Software Technology Awards” sponsored by the Ministry of Knowledge Economy, three awards (government award of the year, technology leading award, government innovation award) at the FutureGov Awards sponsored by Singapore, and the technical level of the Standard Framework was acknowledged internationally. Also, the technical level of the software framework was acknowledged once more when international CMMI certification was obtained (Jan. 2011).

The development framework supports effective application building by providing the functions and architecture required to develop the information system in advance. The “E-government Standard Framework,” by establishing a standard development framework that is applied to public service, aims to standardize application SW and to improve quality and reusability, and through this, “Improvement of the quality of e-government” and “Improving information-oriented investment efficiency” becomes achievable, enabling fair competition between large and small enterprises on the same development base. (Refer to Figure 11)

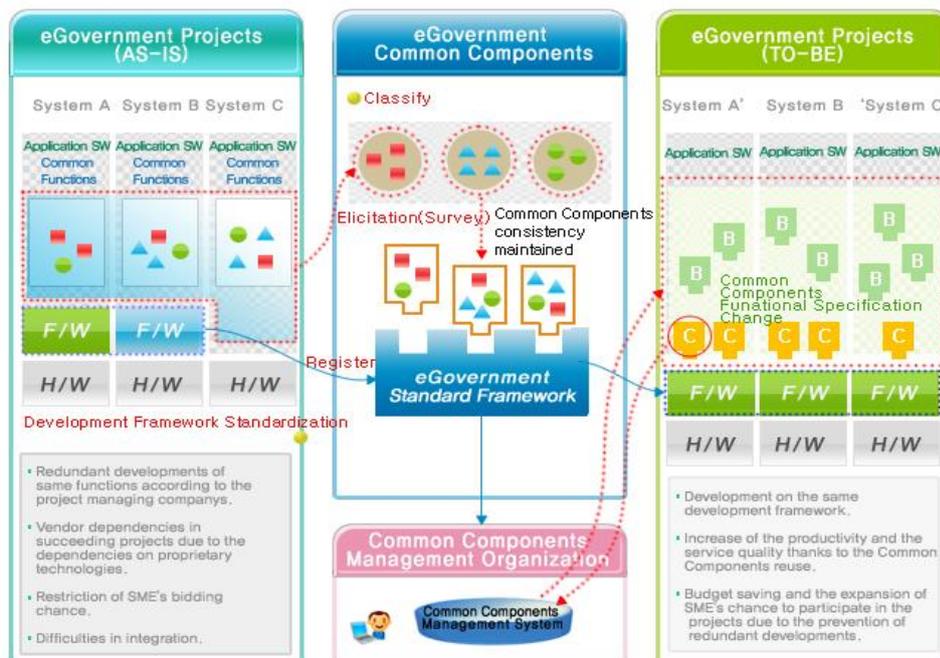


Figure 7 Conceptual Diagram of E-government Standard Framework

The first characteristic is that it complies with open standards. In other words, the open source base has been widely used, and dependency on specific service providers was eliminated by utilizing open technology. Secondly, it is possible to link it to commercial solutions. Interoperability between systems is guaranteed by proposing standards that can be linked to commercial solutions. Thirdly, it aims for national standardization. Standardization at the national level has been achieved through consultation with various stakeholders in the private sector, the public sector and academia. Fourthly, it is designed by considering flexibility to change. Changing is easy through the modularization of each service, and the effects of changing between modules are minimized through linking with the interface base. Fifthly, it provides a convenient & diverse development and execution environment. It provides an environment that enables Eclipse based modelling (UML, ERD), editing, compiling and debugging.

The effects of the application of the standard e-government framework are as follows. Firstly, through the reuse of common components, redundant development of the same functions for each information-oriented business can be reduced. Secondly, while dependence on external service providers for technology used to be high, business dependency has been eliminated with a standardized development base. Thirdly, while without the framework enterprises were not in a favorable



position for competition, the provision of the framework free of charge served as a momentum to improve the competitiveness of minor enterprises. Fourthly, even though lots of time and manpower are required when linking between information systems, interoperability has been improved by using a standardized linking module. Fifthly, the maintenance was difficult due to insufficiency of development standard, but the maintenance became easy with modularization by development standard.

The rapid diffusion of Standard Framework 1.0 produced many changes in the related environment, and based on an analysis of this, a direction for the improvement of standard framework 2.5 has been drawn, as shown in figure 9. The open source upgrade and weight reduction project of Standard Framework 1.0 was promoted in e-government Standard Framework 2.5 by reflecting this direction for improvement. Mobile execution environment, mobile development environment, and mobile common components were progressed.

First of all, reducing the weight of the execution environment is one of the main points of change in the e-government standard framework. An optimal and suitable execution environment for each project was achieved by dividing and distributing the execution environment, which was previously distributed and installed with one file, into an essential section and selective sections.

When using the execution environment, 'essential services' and 'services with high dependability' on other services are provided as the "core layer," and services that are not essential to use in the execution environment are classified as "selective layers" and provided to each business so they can install them selectively. Also, the core service is installed by default, and services other than this that are required in each business can be installed selectively in the development environment. Open source upgrade of the execution environment is underway by reflecting the updated version and reviewing maximum compatibility with the standard framework.

### **3.2 Electronic Tax Bill**

Electronic Tax Bill is a tax bill generated in the transaction of products and services between enterprises that is issued and delivered in the form of an electronic file designated by the National Tax Service, and transmitted to the National Tax Service. The electronic tax bill was given legal force in 2010, and the National Tax Service has been phasing it in gradually so that business operators can adapt to the new system.

The important environmental reason of introducing electronic tax bill is to improve transparency of transaction between businesses and to reduce compliance cost of taxation for taxpayers by using paper tax bill as the necessity of electronic distribution of tax bill between businesses is increasing due to expansion of internet after year 2000.



There are 4 methods of issuing an electronic tax bill, and these include issuing using the National Tax Service tax bill issuing system, ERP and ASP system, ARS and credit card terminals. Additional tax will be imposed when the business operator fails to issue an electronic tax bill within the fixed period, issues a paper tax bill or doesn't transmit the electronic tax bill, or was late in transmitting the particulars of issuance to the National Tax Service.

The business community related to electronic tax bills estimates the market scale as about 120 billion per year, and competition between business operators is currently intense due to many ASP business operators entering the market as a result of its growth potential.

A business operator who wants to issue an electronic tax bill through the internet needs to prepare certain items in advance. First of all, a certificate<sup>3</sup>) is required to issue an electronic tax bill (in order to generate an electronic signature). In terms of the available certificates, there is the general certificate which can be used for all purposes or the certificate for electronic tax, which is one of the certificates with limited use. In this case, as it relates to Value-Added Tax Act, the certificate should be for a business operator and should include the business license number because the taxpayer is the business operator.

Next, the client's e-mail address is required. Sellers of goods and services need to obtain the e-mail of the purchaser to distribute the issued electronic tax bill to the purchaser. The obtained e-mail is used for entering client information when issuing the electronic tax bill, and it does not have to be separately registered in the National Tax Service.

E-sero is a service for small businesses that have difficulty building or using systems such as ERP (Enterprise Resource Planning) and ASP (Application Service Provider) by issuing tax bills in small quantity. The business operator files an electronic tax bill using Esero, which is an electronic tax bill issuing system.

The issuing procedures are as follows. First the seller connects to Esero using a certificate, enters the related transaction information after applying the electronic signature and then issues the electronic tax bill. The electronic tax bill management system of the National Tax Service assigns an approval number to electronically signed transaction information, sends the applicable electronic tax bill to the purchaser via e-mail, and confirms that the purchaser received it by connecting to Esero. Electronic tax bills issued via Esero can be issued by case or in a batch, but issuing in a batch requires a minimum of 10 cases and can be done to a maximum of 100.



The above method only provides the basic issuing and transmitting functions required for filing an electronic tax bill, so the convenient functions provided by ERP and ASP service cannot be used. Furthermore, applicable information is transmitted to the National Tax Service in real time at the time of issuing electronic tax bill, so it is inconvenient to modify or delete an issued electronic tax bill compared to the ERP or ASP service, and difficult to issue a large number of electronic tax bills.

The electronic tax bill issuance method utilizing a private system uses the ASP system that is built by system rental service providers for business purpose or the ERP system that is built by major corporations.

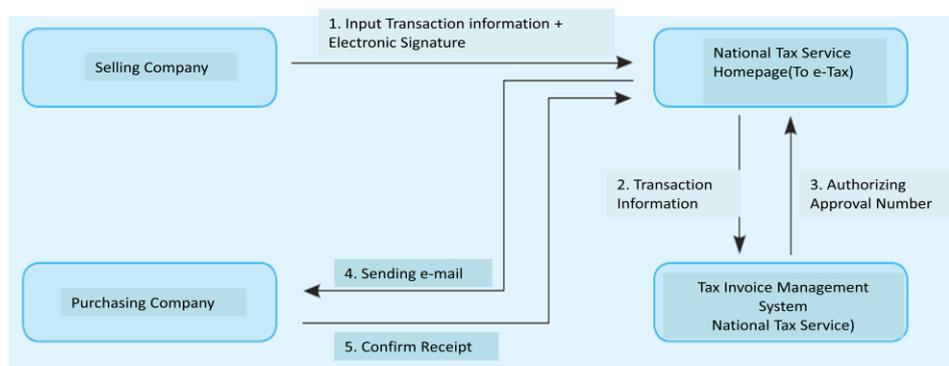


Figure 8. Issuing Tax Invoice using National Tax Service System

The corporate body or private business operator in charge of electronic tax bill issuance has to confirm that the service provider is registered with the National Tax Service before using those private systems. Since the ERP and ASP system are not officially certified systems like E-sro, which was built by the government, business operators who want to use such systems in order to issue electronic tax bills have to obtain a certificate<sup>6)</sup> from the National IT Industry Promotion Agency

The issuing procedure is as follows. First, the seller applies an electronic signature by connecting to the ERP system or the ASP system, and issues an electronic tax bill by entering transaction information. The ASP or ERP system sends issued electronic tax bills to the purchaser by e-mail, and confirms that the purchaser received it by connecting to the ERP or ASP system. The issued electronic tax bill is stored in the management system of the ERP or ASP system service provider, and sent to the National Tax Service by the 15th of the month following the supply date of goods and services.



Electronic tax bill issuance using the ERP or ASP system is frequently used by large and mid-sized enterprises where electronic tax bill issuance is done in a bulk, and it offers various advantages through convenient functions other than the basic issuing-transmitting function of the electronic tax bill. However, since the initial cost required to build the ERP system is high, it can cause a financial burden for small-scale enterprises with few spare funds.

NIPA is conducting certification by deciding whether or not the standard of facilities and systems related to the distribution and transmission of electronic tax bills is suitable on the basis of the 'Basic Act for Electronic Documents and Commerce,' as NIPA started its business in 'Standard certification of electronic tax bill' from Oct.12, 2009. Through this, electronic tax bills and e-documents can be legitimized by minimizing sending-receivings error caused by inappropriate system implementation, and chaos and side-effects can be eliminated in advance.

Standard certification is achieved through two processes. One is a suitability evaluation process to determine whether or not e-document lists, electronic signature, security (encryption) and transmission method of requested facility or system are suitable based on 'Electronic tax bill and Development guidance for electronic tax bill.' Another process is to evaluate its interoperability for smooth linking between the systems, so standard certification (certificate no. and certificate logo, etc.) is given to the business operator who passes all of the processes.

NIPA has acquired an automatic verification system to secure the transparency and fairness of electronic tax bill standard certification, and it is operating a test bed that can be used to test and check in preparation for standard certification service through the electronic tax bill standard certification site ([www.taxcerti.or.kr](http://www.taxcerti.or.kr)).

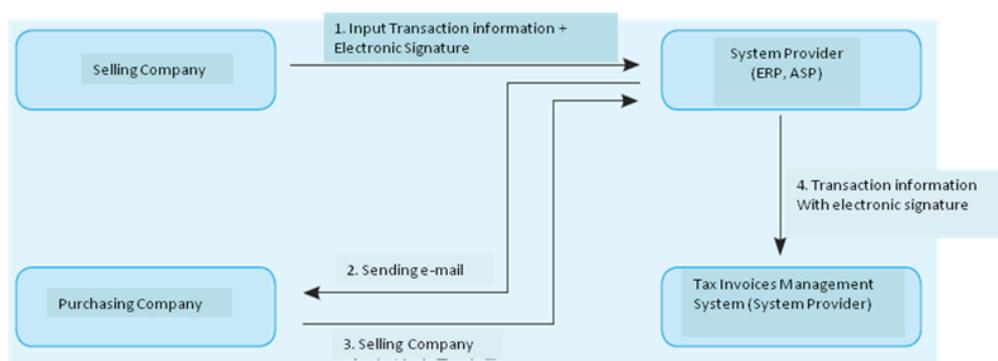


Figure 9. Issuing using ERP and ASP

There is an electronic tax bill issuance method by ARS that is for business operators with little or poor internet skill. Through this, the business operator issues an electronic tax bill and sends it to the National Tax Service using a telephone without



building a separate system.

The issuing procedure is as follows. First, the seller enters transaction information by phone and then the electronic tax bill is issued when the entered information is transmitted to the electronic tax bill management system of the National Tax Service. When the electronic tax bill is issued, a text message containing the issued confirmation is sent to the seller, and the seller who has verified this delivers the paper tax bill to the purchaser.

Sellers who want to issue electronic tax bills with ARS should obtain a security card from the competent tax office. Issuing an electronic tax bill can be done by entering the password you set up for the issued security card and following the audio guidance. Issuing using ARS has the advantage of requiring no extra cost, but issuing electronic tax bills in bulk is difficult because entering transaction information is time consuming.

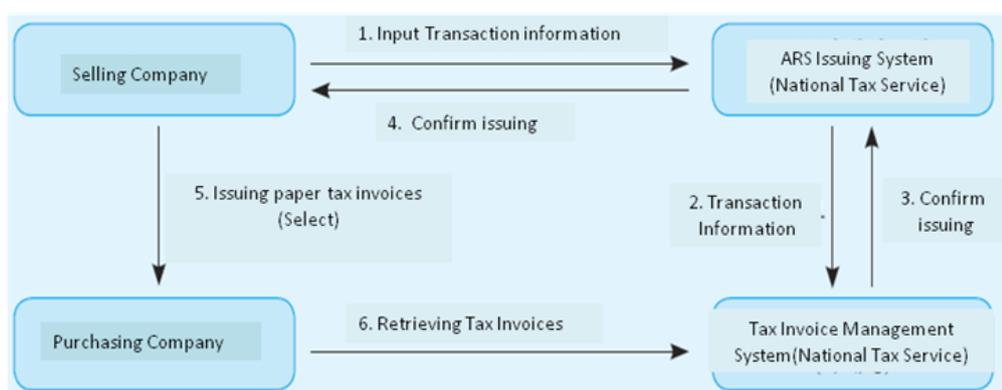


Figure 10. Issuing using ARS



## SECTION IV – Other advanced applications – IT-enabled Service (ITeS)

### 4.1 e-Government SOA services

The development of a service-oriented system in the public sector is completed by applying the Service-Oriented Architecture (SOA) technology standard to the e-government standard development framework. This means that the system is prepared that can utilize the advantages of SOA of web service in earnest by using SOA to provide service nationwide with the consumer at its center.

Since 2007, the National Information Society Agency (NIA) under the Ministry of Security and Public Administration has been trying its best to legislate quality lists of web service, which is the base technology of SOA, as an OASIS national standard, and currently, its goal is to develop a national standard for quality lists and a quality model by 2014.

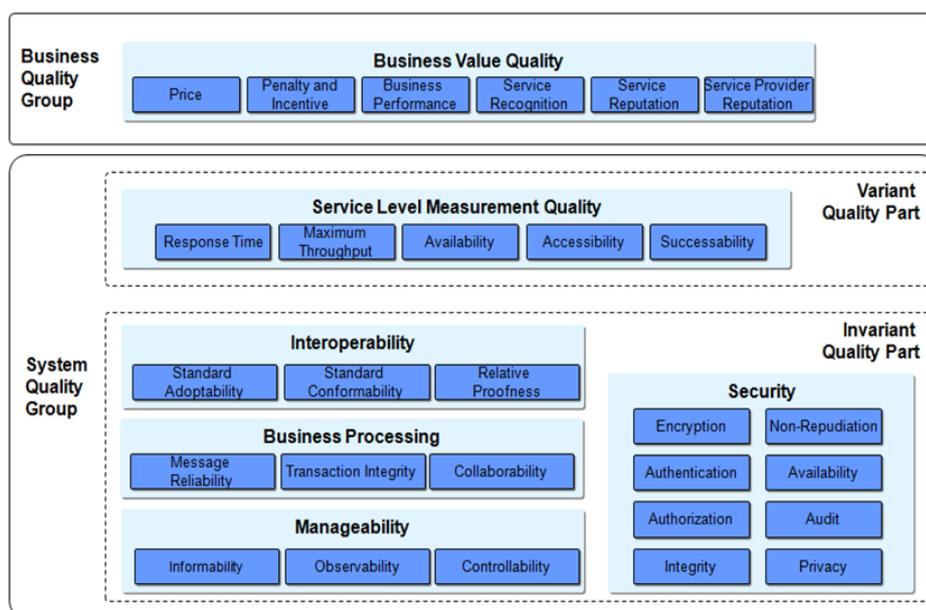


Figure 11. OASIS SOA Quality Criteria Standard Model

By applying a unique development frame, the e-government standard development framework can minimize the inconvenience of modifying the existing development framework when other business operators participate in business in the future, and it can also minimize the resulting waste of time · cost · manpower. SOA system can be used by implementing SOA to the standard development framework in the future when applying the standard development framework to the government's system development project, so the advantages of implementing SOA can be secured. The Ministry of Security and Public Administration has completed its 'e-government



standard common service and development framework building project' as part of the e-government support project. Through this project, the Ministry of Security and Public Administration developed 125 types of common services that have a high reuse rate, such as log-in • bulletin board, and made the development of a standard base possible by defining related design and development standards.

In particular, it has promoted a way to increase the reuse rate of existing common services, such as the guide for civil services, by building a 'National certification service registration storage.' This has unified the government's web service registration storage (UDDI) that was originally divided into 2~3 parts. In this way, the project of securing the consistency of service data within the e-government standard common service and the development framework and unifying the scattered data in a single storage is completed.



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## **Country Progress Report**

### **Vietnam**

**32nd AFACT Plenary**  
**Bangkok, Thailand**  
**November 25-27, 2014**



MINISTRY OF INDUSTRY AND TRADE  
VIETNAM E-COMMERCE AND INFORMATION TECHNOLOGY AGENCY



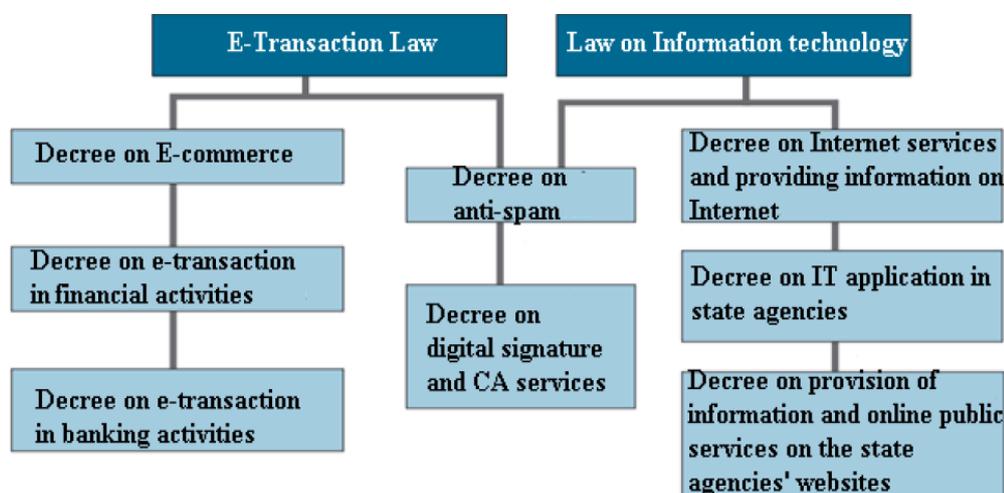
## SECTION I - GENERAL STATUS UPDATE

### 1.1 The core legal framework for e-commerce in Vietnam

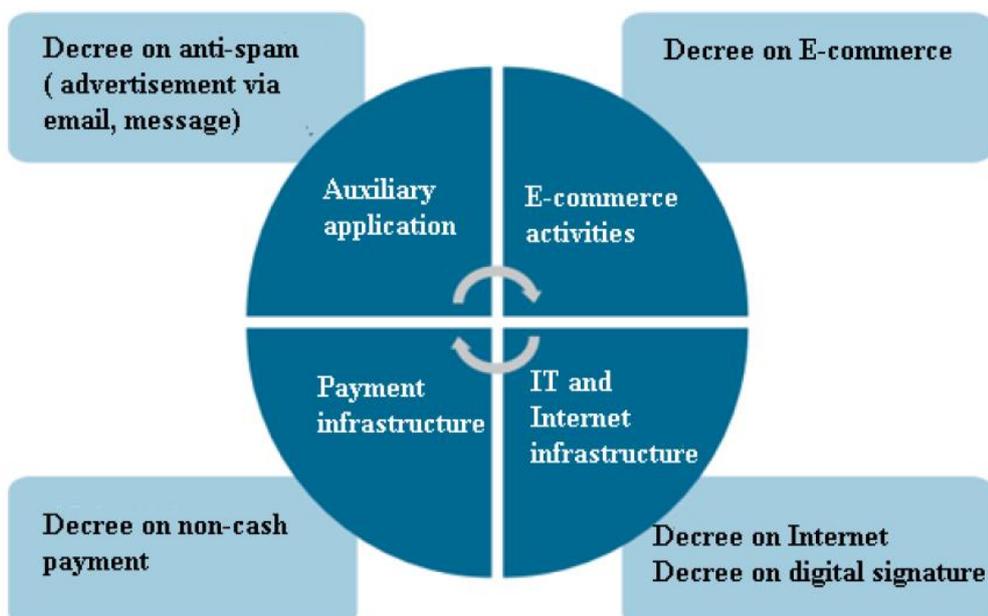
E-commerce activities means conducting a part or the whole process of a commercial activity via electronic means connected to the Internet, mobile telecommunications network or other open networks. E-commerce means a method to conduct business and commercial activities, the subjects in e-commerce have to comply with the legal provisions on business, trade, competition, protection consumers' rights and other relevant provisions.

The Law on Electronic Transaction 2005 and the Law on Information Technology 2006 are two key legal texts of e-commerce in Vietnam. The Law on Electronic Transaction adjusts the electronic transaction activities of the state agencies and the fields of civilian, business and trade. Meanwhile, the Law on Information Technology stipulates the IT application and development in general as well as the other measures to ensure the technology infrastructure for these activities. Two core texts of e-commerce legal system at the moment are Decree No.52/2013/ND-CP on E-commerce and Decree No.72/2013/ND-CP on management, provision and use of Internet services and online information.

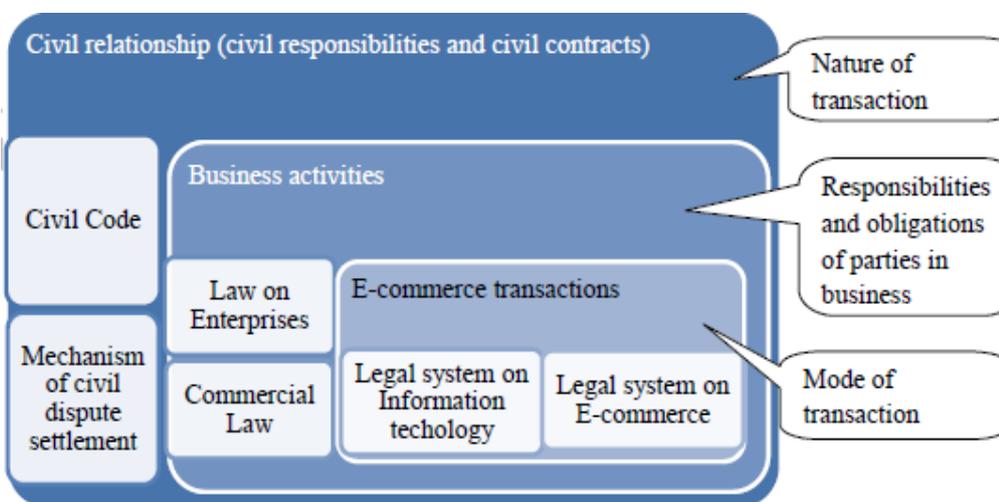
Legal framework on e-commerce



**Impact of legal documents recently promulgated or modified on aspects of e-commerce activities**



**E-commerce activities – Governed subjects of legal documents**



**1.2 Introduction to the legal documents related to e-commerce**

**1.2.1 Decree No.52/2013/ND-CP on E-commerce**

Decree No. 52/2013/ND-CP of the Prime Minister was promulgated on May 16, 2013 to adjust specific issues arising in the electronic environment, not to repeat the

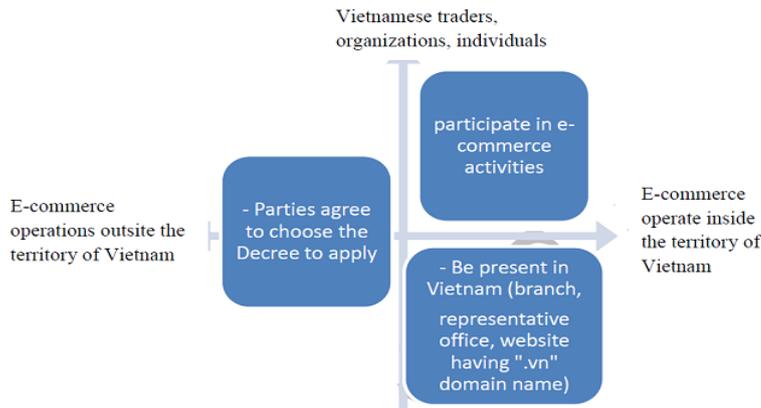


general regulations of business and trade which the subjects of e-commerce have their obligations to comply.

**Approach in formulating the Decree**

Combination of 2 approach methods		
General regulations on mode of transaction (contracting process)	Regulations for specific modes of business in e-commerce	
Core regulation		
Adjustment e-commerce activities on Internet environment (website)		
Gathering recently regulations scattered in some other legal texts		
Decree on E-commerce (2006) -> legal validity and other technical elements of e-communication	Circular No.09/2008/TT-BCT guiding on provision of information and contracting process on e-commerce website	Circular No.46/2010/TT-BCT on managing sale e-commerce websites and e-commerce service websites

**Subjects of application in Decree on E-commerce**



**National E-commerce development program**





### 1.2.2 Introduction to Circular No.12/2013/TT-BCT stipulating the procedures of notification, registration and promulgation of information related to e-commerce websites

On June 20, 2013, the Ministry of Industry and Trade promulgated Circular No.12/2013/TT-BCT bguiding some provisions to manage e-commerce websites in Decree No.52/2013/ND-CP of the Prime Minister on E-commerce. The Circular comes into effect from July 01, 2013, at the same time with Decree No.52/2013/ND-CP on E-commerce.

#### Scope and subject of application in Circular No.12/2013/TT-BCT



### 1.2.3 Introduction to the legal documents related to e-commerce activities

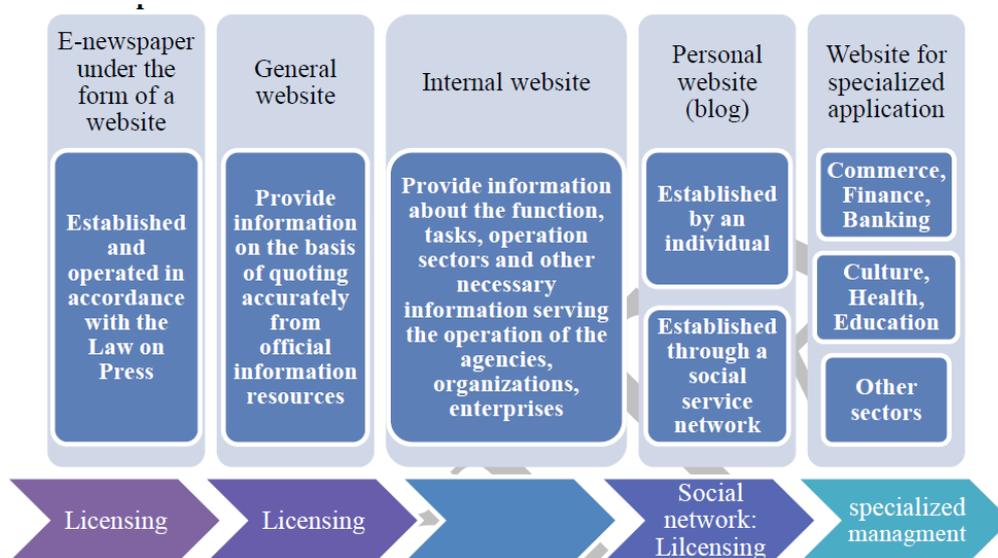
Besides on the management of provision and use of Internet services and online information, the Prime Minister promulgated Decree No. 70/2012/ND-CP on October 05, 2012 to amend and supplement Decree No.90/2008/ND-CP on Anti-spam, this has much changes in the direction of management as well as other specific provisions to the involved parties when sending e-mails. This Decree comes into effect from January 01, 2013 with new amendment regulations such as:

- Tightened provisions for the dissemination of commercial e-mail and advertisement message,
- Tightened provisions for the obligation of dissemination, transparency of the content service providers and telecommunication enterprises: Disseminating information about content services that providers provide (terms of use, service fee...) on the website; Prohibit deduction from the users' mobile phone account without prior notice.
- Supplementing liability of telecommunication companies in preventing spams.
- Supplementing regulations in order to raise the competitiveness of the mobile content service market.



- Supplementing regulations for use of name when sending advertisement messages.
- Increasing sanction levels for administrative violations - Other amended and supplemented provisions.

**Classification of websites stipulated in Decree No.72/2013/ND-CP on management, provision and use of Internet services and online information**





## **SECTION II – EDIFACT/ebXML/XML Based STANDARDS DEVELOPMENT**

### **2.1 Issuing code of gathering point for goods in export**

In order to create favorable condition for export operation enterprises implementing e-customs procedures on VNACCS system, General Department of Vietnam customs just promulgated a legal document No.8294/TCHQ-GSQL dated July 1, 2014 on guiding the issuance of gathering point code for goods in export.

Accordingly, time for export operation enterprises used to declare storage location code of goods in accordance with temporary code of customs sub-department where the enterprises open their declaration form will be extended up to the end of December 31, 2014.

General Department of Vietnam customs also informs that export operation enterprises have to comply with guidance at Circular No.4351/TCHQ-GSQL dated April 22, 2014 of the General Department of Vietnam customs when doing application procedure for the issuance of gathering point code for goods in export, specifically as follows:

#### **2.1.1 To enterprises:**

The enterprise makes an application dossier and directly sends to provincial and city department of customs where managing the area of goods gathering warehouse tentatively waiting for customs clearance to be issued location code. The dossier consists of:

- Application form for the issuance of place code according to the model form at the appendix No.01 attached with the mentioned Circular No.4351/TCHQ-GSQL (01 original form)
- Certificate of business registration or investment (01 copy form)

#### **2.1.2 At the provincial and city departments of customs:**

Customs officers at the provincial and city department of customs receive requested dossier for the issuance of gathering point code for goods in export from enterprises in their own management area; sum up and assign a sub-department to manage the storage warehouse under the location.

Within 3 working days from receiving enough application dossier of the enterprise, the provincial and city department of customs makes a list and report to the General Department of Vietnam customs in accordance with the model form at the appendix No.02 attached with the mentioned circular No.4351/TCHQ-GSQL above to issue the code.



### **2.1.3 At the General Department of Vietnam customs office:**

Within two working days from receiving report of the provincial and city department of customs, the department of customs control and supervision of the General Department of Vietnam customs issues storage location code of goods waiting for customs clearance to the enterprises. In addition, this agency coordinates with the department of Customs IT and Statistics to update code of gathering points for goods into VNACCS system and announces it on customs information website of the general department of Vietnam customs.

### **2.2 National Single Window (NSW)**

NSW simplify and harmonize procedures for import and export of goods in transit, and to shorten the time and reduce the cost of customs clearance liberation export goods in transit.

According to management agencies, NSW will cut from 10 to 20% of the cost, 30% of the time for clearance of import and export shipments. Time and cost reduce to increase competitiveness of domestic products, penetrate major markets as well as access more resources for production.

In addition, the NSW will ensure transparency and improve the predictability of the mechanisms and policies issued by the government; enhance the management capacity of state government agencies and the executive capacity of economists to connect to the ASEAN Single Window (ASW) under the exchange of information trade with other trading partners globally.

With the strong development of information technology and electronic commerce, the SW will facilitate the flow of information accelerating freight movement, reducing the time and cost for the business community, enhancing economic efficiency for the whole society.

In 2013, the Ministry of Industry and Trade (MOIT), Ministry of Finance and Ministry of Transportation were firstly participating in the pilot NSW. The procedure was put into pilot license procedures including certificate of origin C/O form D, import and export licenses for explosives industry, import and export licenses for ozone depleting substances and procedures certification, Kimberley licensing processes and automatic import license of big ounce motorcycles.

The implementation of NSW with the procedures of the MOIT will simplify procedures for import and export of goods in transit; improve the quality and accuracy of information and documents provided by the business community; be ready to connect to the ASW according to exchange trade information with other commercial partners in the world. Businesses will be entitled to many benefits such as stable response time and service costs; enhancing the competitiveness of



domestic goods, penetrating major markets as well as access more resources for production; rational use of resources, efficiency, capacity building and enterprise development.

The ministries of Industry and Trade, Finance, Transportation are pushing to upgrade the system from a centralized to a centralized sales, research continues Decision 48 amendments to extend the pilot period is expected to end 2015. In 2014, there will be more ministries of the Health, Agriculture and Rural Development, Natural Resources and Environment connection in NSW.



## **SECTION III –e-Readiness and e-Application -- eGovernment/ eBusiness RELATED PROJECT UPDATES**

### **3.1 Introduction**

E-business Index provides comprehensive, trustworthy and quantitative information to outline the whole picture of e-commerce nationally as well as locally. In 2013, VECOM continued to formulate this index in order to support the state agencies, organizations and enterprises to estimate quickly the status of e-commerce application in the nationwide as well as in the regions.

From the approaching of “demand”, E-Business Index (EBI) is the result of the survey of e-commerce application among thousands of enterprises. EBI is formulated based on four criterion groups: human resources and ICT infrastructure, business to customer transactions (B2C), business to business transactions (B2B) and government to business transactions (G2B).

Each criterion group is graded by the 100 point scaling with an assigned weight. The total score of the assigned weight of all four groups is basic for evaluation and classification of e-commerce application among localities. Each criterion in each group is also graded by the 100 point scaling with an assigned weight to express the importance of each criterion in an equivalent group.

Weights for each group as well as each criterion have remained unchanged in several years to create favorable conditions for comparison.

### **3.2 Human resources and information technology infrastructure index**

Human resources and Information Technology Infrastructure Index (HR and IT Infrs) is measured based on several elements such as how the current human resources meet the demand of information technology and e-commerce application among the enterprises, the ability of recruitment of information technology and e-commerce employees, the types of staff training, the proportion of employees in charge of e-commerce and information technology, the proportion of employees using email frequently as well as the other criterion groups on computer infrastructure, Internet access or investment for information technology and e-commerce.

The average score of this index in 2013 was 61.5, the highest score was 76.0 and the lowest score was 51.3. This result reflects that the human resources and information technology in Vietnam are ready for e-commerce application. Also, the information technology and communications infrastructure have already basically met the demand of e-commerce implementation in almost localities.

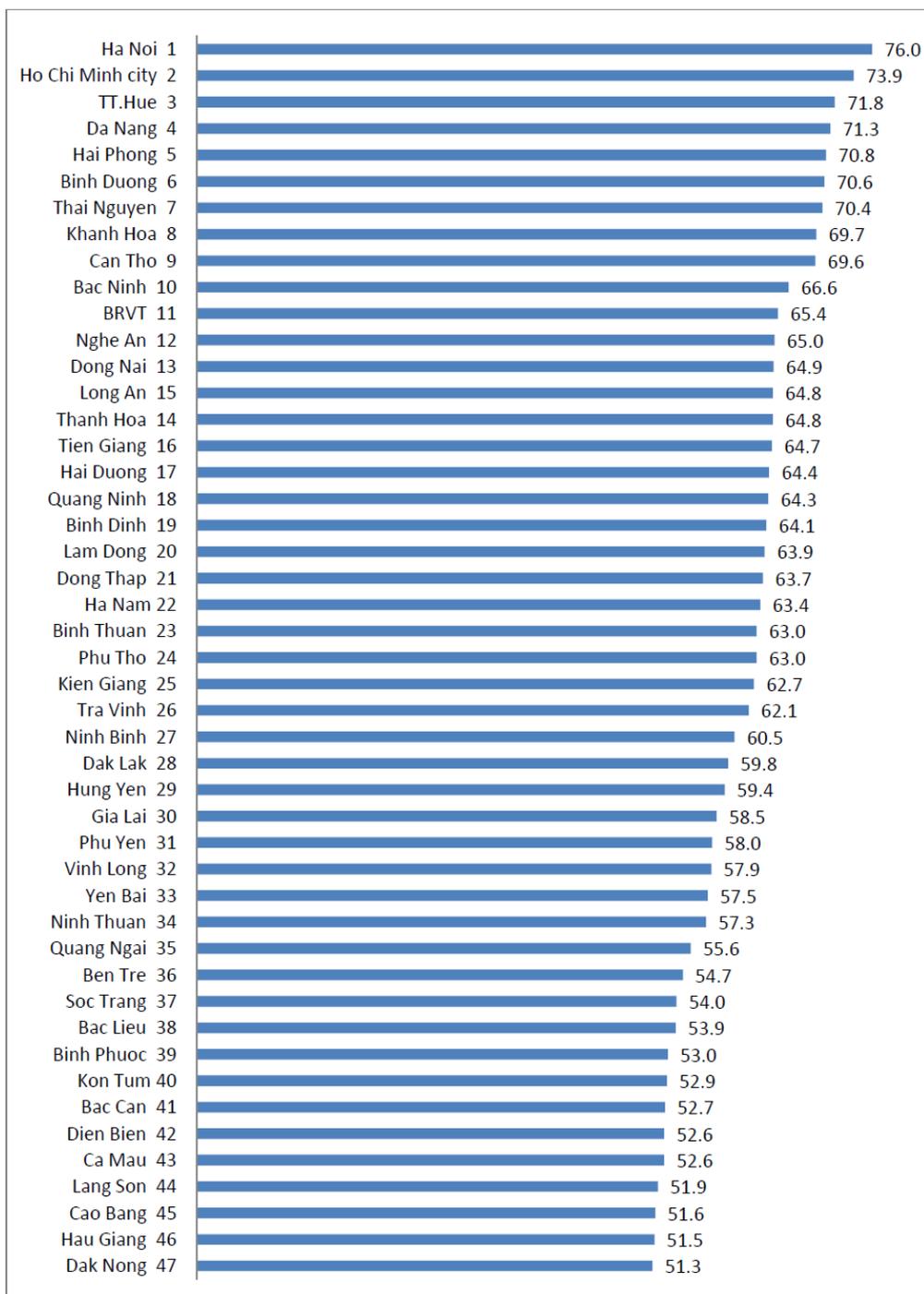


The big cities do not only have the highest score of HR & IT index but also have scores increasing faster than scores of the rest of other cities. Similar to 2012, Ha Noi and Ho Chi Minh city were the two leading cities with the scores of 76.0 and 73.9, respectively. In comparison with 2012, the score of Ha Noi had increased by 4.7 and the score of Ho Chi Minh city had increased by 2.9. Followed by 71.8, 71.3 and 70.8 being Thua Thien – Hue, Da Nang and Hai Phong respectively. In 2012, the score of Thai Nguyen was 68.7 and took the fifth place of the ranking. In 2013, the score of this province had increased by 1.7 to reach 70.4, but only stayed in the seventh place of the ranking.

The five provinces having the lowest scores of HR & IT index are located in North Mountain, Southwest and Central Highlands. They are namely Dien Bien (52.6), Lang Son (51.9), Cao Bang (51.6), Hau Giang (51.5) and Dak Nong (51.3). However, with the 100 point scaling, the scores of these provinces are more than the average point.



**Human resources and Information Technology Indexes**





### **3.3 B2C Index**

This index is formulated basing on these main following elements: 1) use of email for commercial activities such as contracting, advertisement, introduction of products and enterprises, customer transactions, customer services... 2) set-up and operation of the enterprise's website...3) participation in e-marketplaces; 4) use of non-cash payment means; 5) protection of individual information.

Enterprises having websites are evaluated by many important elements including: the frequency of website updates, the number of related staffs, methods of website frequency of website advertisement.... Grading websites are also based on the main functions of websites such as introduction of enterprise's information, goods and services or online ordering functions, online payment function and online customer services function...

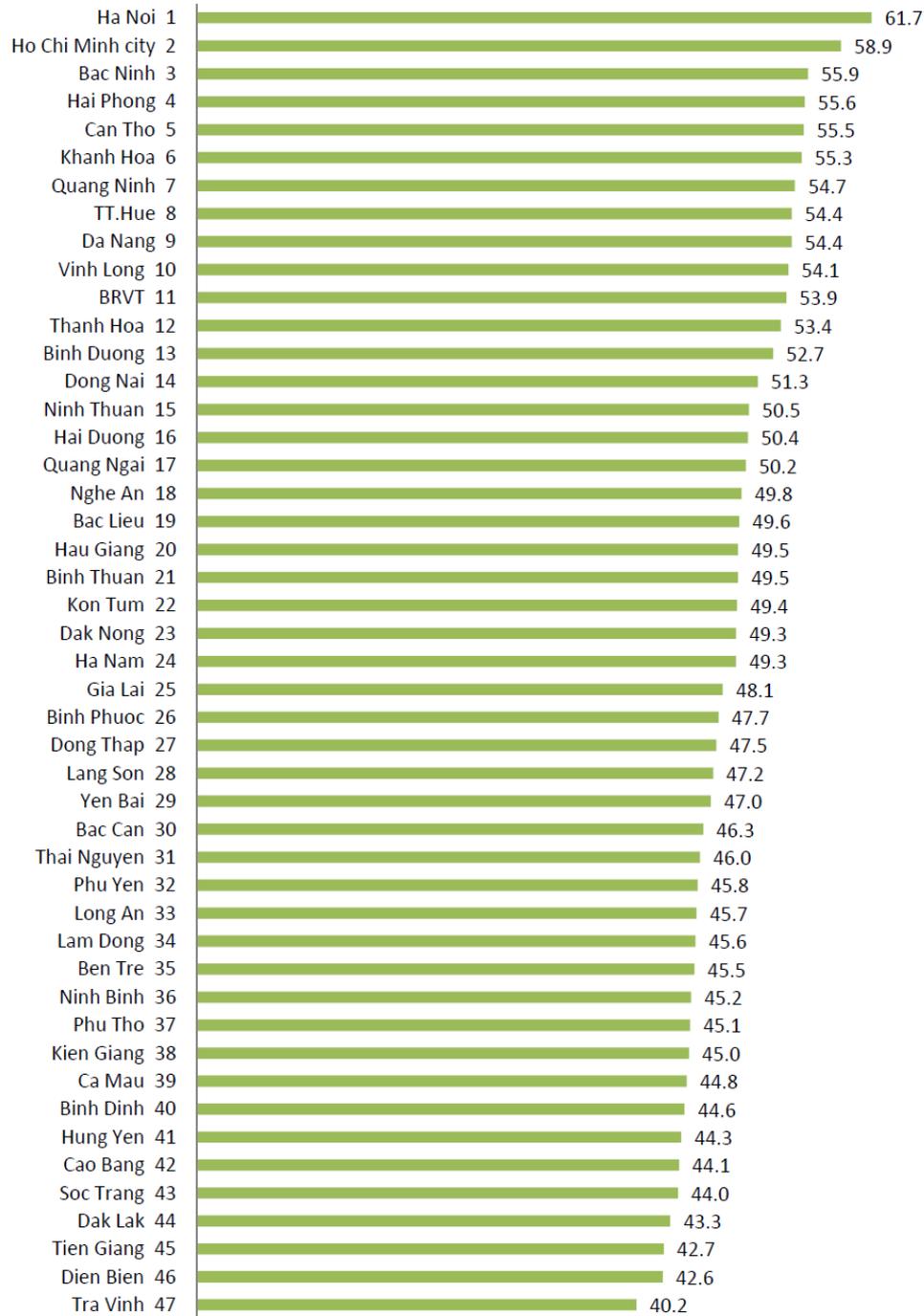
The average point of B2C index is just 49.1. It is the lowest score in the total of EBI's four criterion groups, including HR and IT Infrass index, B2C transactions, B2B transactions and G2B transactions. The average point reflects the rate of enterprises not owning websites (57%) higher than the enterprises owning websites (43%). On the other hand, the quality and effectiveness of websites getting back to the owners are not high enough. There is not much supporting for customers in the usage of payment means. The enterprises do not pay their adequate attention to protect the personal information in the online transactions.

Ha Noi was the leading city with the score of 61.7, increased 5.5 in comparison with the figure of 2012. Followed by Ho Chi Minh city with 58.9, rose of 5.1; Hai Phong had risen by 4.5 to reach 55.6.

There are 64% of localities staying under the average score; the gap between the highest and the lowest score is 15.4. In terms of this transaction, some localities has increased remarkably. For instance, the score of Thanh Hoa had increased from 49.0 in 2012 to 53.4 in 2013; The score of Nghe An had risen from 45.4 to 49.8 and the score of Binh Phuoc had risen from 41.8 to 47.7.



**B2C Transaction Indexes**





### **3.4 B2B Index**

This index focuses on the internal information technology application of enterprises, especially the implementation of software including Enterprises Resources Planning (ERP), Customer Relationship Management (CRM) and Supply Chain Management (SCM). The implementation of these softwares requires the scientific management and the determination of information technology application at all management levels as well as the sufficient investments in information technology and e-commerce. In term of successful application of these softwares, the enterprises can conduct e-commerce activities at a large scale, safety and effectively.

Simultaneously, this index also focuses on the reality of receiving orders and placing orders of enterprises on the Internet and the total value proportion of orders over the total revenue of enterprises.

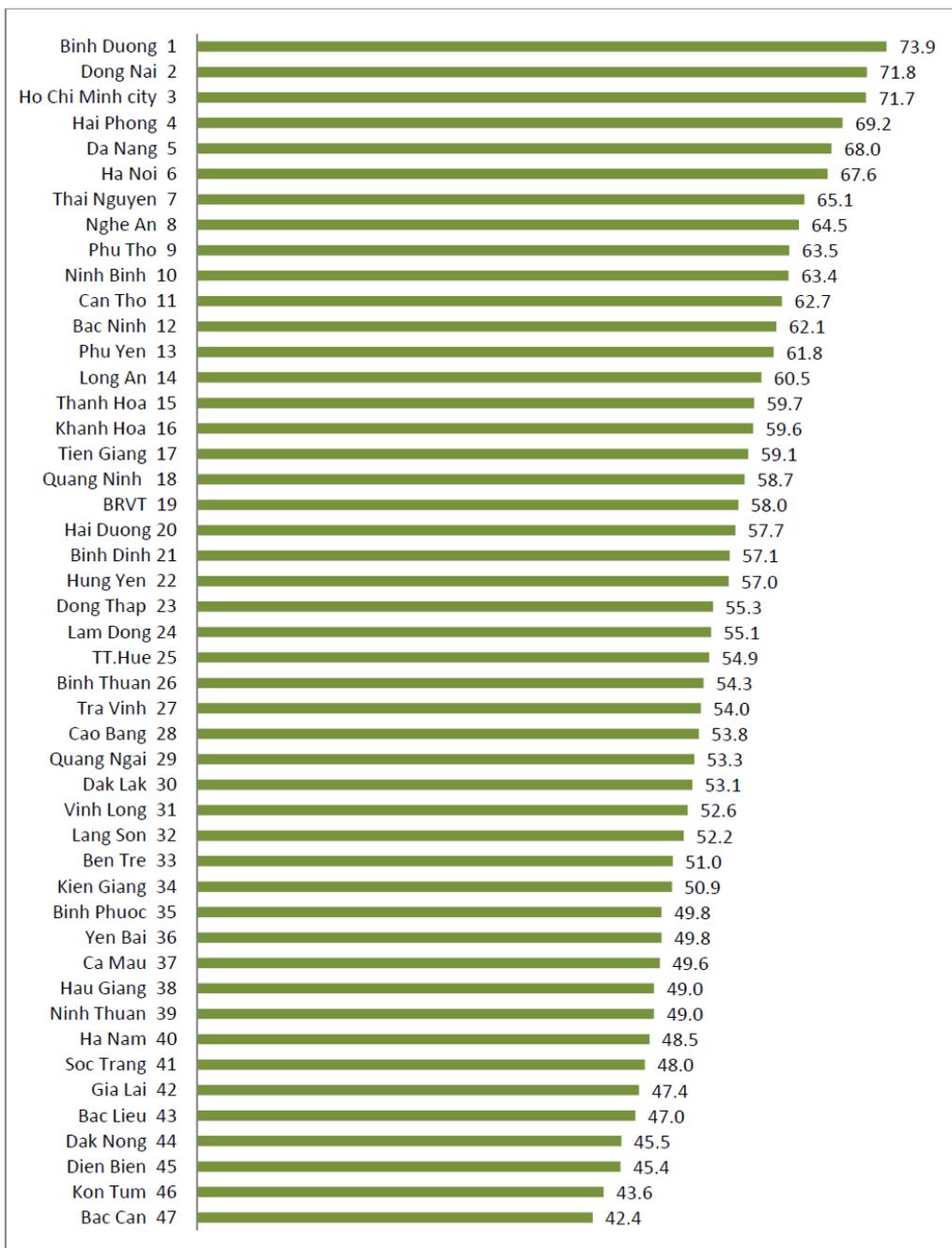
2013 has seen the two localities ranking the highest scores in the B2B transactions index but they are not the biggest cities. Binh Duong has the score of 73.9 and becomes the pioneer city, of which having the numbers of enterprises implement e-commerce professional quite many. The follow province is Dong Nai with the score of 71.8. The score of Ha Noi is 67.6, raise 1.8 scores compared to 2012; the score of Ho Chi Minh City is 71.7 and increases 3.3 scores compared to the previous year.

Some provinces have the rapid increase in the number of enterprises implementing e-commerce. For instance, Thai Nguyen increases 10 scores, from 55.4 in 2012 to 65.1 in 2013.

There are 28% of localities staying under the average score. The provinces having the lowest scores are Dak Nong, Dien Bien, Kon Tum and Bac Can.



**B2B Transaction Index**





### **3.5 G2B Index**

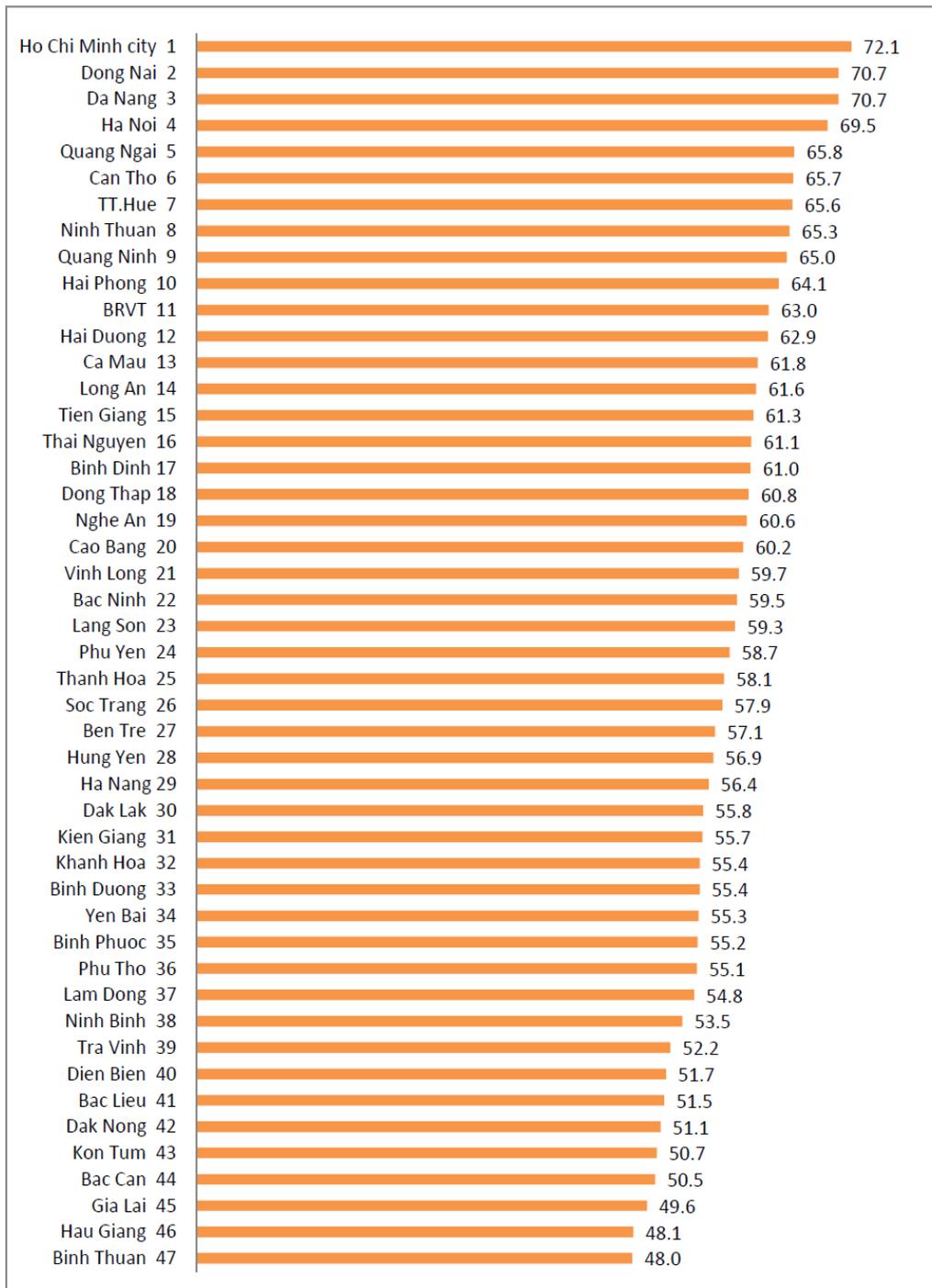
The information gathering easily from the state agencies' websites would create a favorable condition for business activities among the enterprises and could be seen as one of the e-commerce elements. Besides, e-commerce in enterprise could not be separated with the provision of online public services such as electronic customs services, electronic certificate of origin or electronic tax declaration. In addition, the scale of Governmental trading has the significant proportion of all commercial activities at every scale in any countries, therefore, the online bidding of public goods and services cannot be separated with online trading.

In term of G2B transactions index, the average score was 58.8. Ho Chi Minh City had the highest score of 72.1, up 4.1 compared to the score in 2012. Ho Chi Minh City had overtaken Da Nang to become the city on top of this index. Dong Nai stayed in the second of the index with the score of 70.7, raised 9.0 scores and became one of the provinces having the most significant increase in the ranking. Ha Noi also had a remarkable increase from 65.7 in 2012 to 69.5 in 2013.

Most of the leading provinces place above the average score and the enterprises generally express for the better evaluations about the quality of public online services. This result is similar to the e-government ranking of United Nations. In 2012, the ranking of Vietnam had risen by 7 level compared to 2010 and placed the 83rd ranking out of 190 countries.



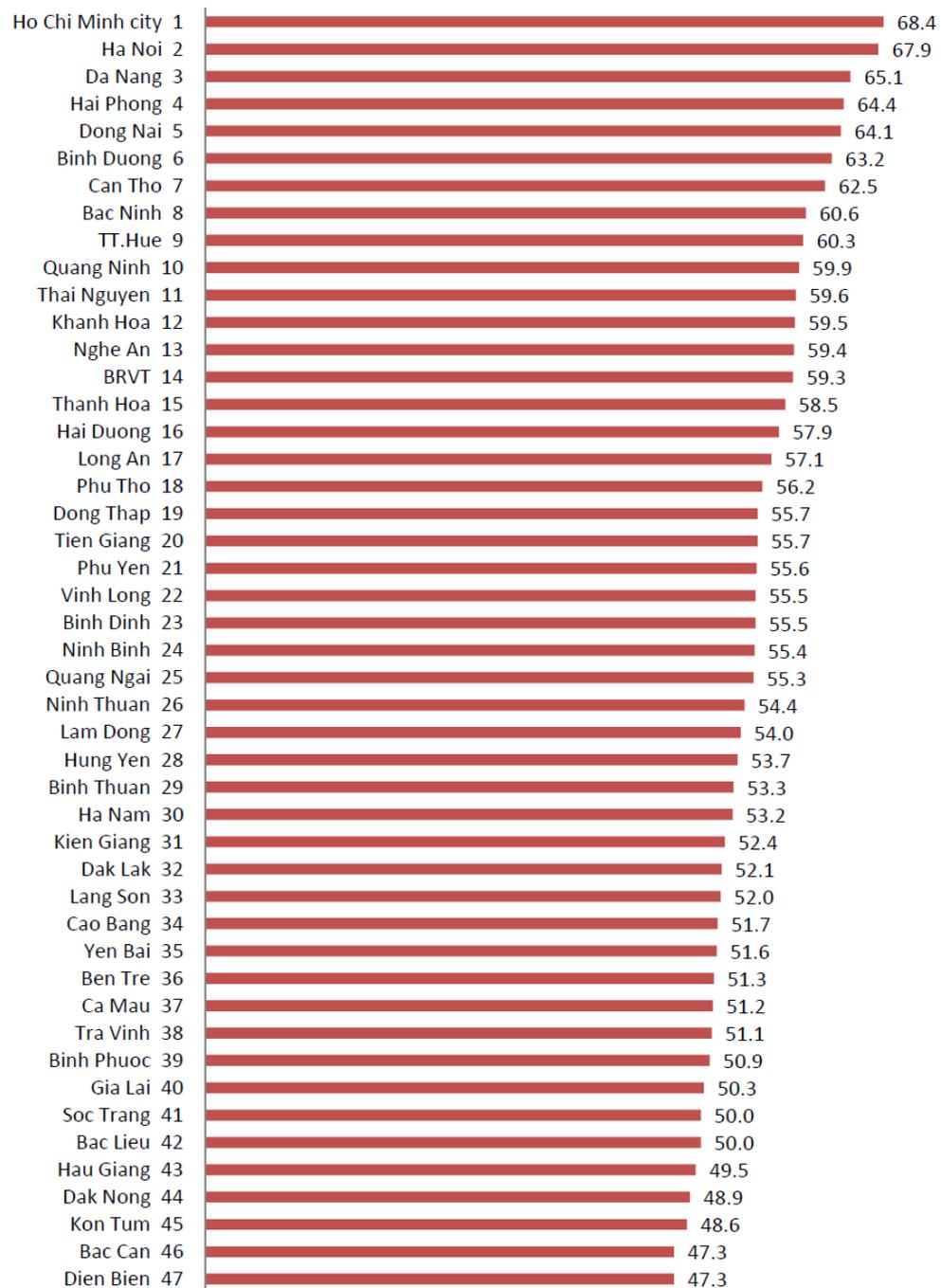
**G2B Transaction Indexes**



2013 EB Index



2014 AFACT Year Book  
Asia Pacific Council for Trade Facilitation and Electronic Business





## **United Nations ESCAP Progress Report**

**32nd AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



## SECTION I –Project/Activity

### 1.1 Regional Organizations Cooperation Mechanism for Trade Facilitation (ROC-TF)

The second annual meeting of the Regional Organizations Cooperation Mechanism for Trade Facilitation (ROC-TF) in Asia and the Pacific was held in Beijing in collaboration with China International Electronic Commerce Centre and Asian Development Bank (ADB) on 9 September 2013. The meeting was attended by eleven international and regional organizations and one organization joined via skype. The participants discussed about the progress of the ROC-TF mechanism and an update was provided by ESCAP as its secretariat. Each organization briefed about their initiatives on trade facilitation in the Asia Pacific region. The meeting also highlighted the opportunities to improve exchange of information and greater collaboration. One key opportunity that was discussed was adoption of a common performance monitoring framework in trade facilitation among the agencies represented in the meeting. In this regard, ESCAP presented its annual country survey on trade facilitation implementation for consideration.

A number of new organizations participated and contributed to the meeting including UNDP China, Asia Pacific Council for Trade Facilitation and Electronic Business (AFACT) and Pacific Island Trade and Invest (PT&I). The other organizations that attended the meeting were: Asian Development Bank (ADB), Asia Pacific Economic Cooperation (APEC), South Asia Association for Regional Cooperation (SAARC), Oceania Customs Organization (OCO), UN Economic Commission for Europe (UNECE), USAID-ASEAN SW Project, World Customs Organization's Regional Office for Capacity Building (WCO-ROCB), UNDP's Border Management Programme in Central Asia (BOMCA) and UN Economic and Social Commission for Asia and the Pacific (ESCAP).

The meeting recommended the following to enhance the cooperation of ROC-TF participating organizations:

- Improve modalities of cooperation among the organizations including co-organization of events and opportunities to attend meeting of each other where possible. In this connection, it was mentioned that ESCAP was provided a three-year Guest status to attend APEC's Sub Committee on Customs Procedures (SCCP) meetings.
- Find out more areas of cooperation on research and analysis, and substantive areas in trade facilitation including monitoring trade facilitation performance.
- Share the results of the Annual ESCAP Trade and Transport Facilitation Country Survey 2013 including the survey questionnaire with the ROC-TF organizations for potential application in countries where they operate.



- Continue publishing the bi-annual newsletter and focus more on knowledge products. In this respect, organizations were requested to provide information on their projects, activities, publications, achievements etc. in due time. It was emphasized that the number of downloads or hits to newsletter page be counted.
- Continue updating the joint calendar of events so that each organization is aware of the events ahead of time and can coordinate activities on similar areas. In this respect, timely submission of information was requested.
- Continue inviting new organizations to ROC-TF.

### **1.2 Implementation of ESCAP Resolution 68/3**

The ESCAP secretariat has continued the implementation of Resolution 68/3 by organizing the Ad Hoc Meeting on Development of Regional Arrangements for the Facilitation of Cross-border Paperless Trade on 12 September 2013 in Beijing, China, back-to-back with the Asia Pacific Trade Facilitation Forum 2013. The meeting was participated by national focal points, official nominees or experts from 18 member countries as well as representatives from other international and regional organizations.

Based on the outcome of member consultation through three subregional and the regional meetings, the secretariat presented the results on development of regional arrangements to the ESCAP Committee on Trade and Investment (CTI) at its third session on 20-22 November 2013 for next step. The CTI noted the progress made on the implementation and supported the desire of member States for a regional arrangement on cross-border paperless trade. The CTI agreed to move forward with negotiation of the arrangement and, taking note of the need for further discussion, requested the secretariat to organize another member consultation in the form of an ad hoc intergovernmental meeting prior to the seventieth session of the Commission in order to incorporate relevant revisions to the existing draft text.

In this context, ESCAP organized the Ad Hoc Intergovernmental Meeting on a Regional Arrangement for the Facilitation of Cross-border Paperless Trade on 22-24 April 2014 in Bangkok, Thailand. This was organized in accordance with the mandates contained the ESCAP resolution 68/3 and in the report of the Committee on Trade and Investment on its third session, the Meeting reviewed and improved the draft text of a regional arrangement on facilitation of cross-border paperless trade. It decided to establish an interim intergovernmental steering group on cross-border paperless trade facilitation, which would be tasked with: (a) further improving the draft text of the regional arrangement as a potential intergovernmental agreement; (b) preparing a draft road map for the implementation of substantive provisions in the draft text; and (c) other functions as agreed by the steering group.

The decision of the Meeting to establish an interim intergovernmental steering group



on cross-border paperless trade facilitation was subsequently endorsed by the 70th Session of the Commission, held from 4 to 8 August 2014. Find more information and documents regarding the Ad-Hoc Intergovernmental Meeting on Regional Arrangement for Facilitation of Cross-border Paperless Trade at: <http://unnex.unescap.org/fcpt-igm.asp>

### **1.3 Asia-Pacific Trade Facilitation Forum 2013**

The Asia Pacific Trade Facilitation Forum (APTFF) 2013, jointly organized by ESCAP and ADB on 10-11 September 2013 in Beijing, China was attended by approximately 250 participants from nearly 40 countries of the Asia Pacific region and outside the region. This year's theme was 'Towards more efficient and inclusive supply chains: public and private sector perspectives'. The newly updated ADB-ESCAP Publication "Designing and Implementing Trade Facilitation in Asia and the Pacific: 2013 Update" was launched during the Forum. This year's Forum included a high level panel discussion and four thematic sessions on trade logistics, trade finance, paperless trade and single window, respectively. In parallel with the Forum, an exhibition on Trade Facilitation was held to maximize information sharing on practices, case studies and findings of trade facilitation.

Overall, there was wide ranging consensus at the Forum that reforms to help small-to-medium-sized businesses (SMEs) cannot be limited only to border-related procedures, but need to extend well behind the border. This is to ensure that the business environment is conducive to their direct or indirect participation in international trade, both in terms of the availability of competitive logistics and of financing. The Forum also recommended that regional arrangements for SME trade finance and cross-border paperless trade should be actively pursued.

Some of the highlights of the Forum discussions are as follows:

- Legal framework is essential to improve efficiency in supply chains at the national level
- Role of associations providing services in supply chain should be enhanced and their capacities be improved
- International trade logistics cannot be completely separated from domestic logistics performance, and both can contribute to inclusive development.
- Lack of access to trade finance is a key barrier to integration of SMEs in international supply chains
- The region is strongly committed to paperless trade, but capacity gaps are slowing progress
- Deeper cooperation between public and private sectors would enable and speed up cross-border paperless trade



- Reforms to help small and medium enterprises (SMEs) cannot be limited only to border-related procedures, but need to extend well behind the border

#### 1.4 ESCAP - WCO UNNExT Masterclass 2013

The ESCAP-WCO UNNExT (United Nations Network of Experts for Paperless Trade in Asia and the Pacific) Masterclass on Implementing Single Window and Paperless Trade was organized at the Korea Customs Border Control Training Centre, Cheonan, Republic of Korea on 7 to 18 October 2013. It was attended by 22 officials from 12 Asia-Pacific developing countries including 8 LDCs and LLDCs. The participants were mostly from Customs agencies as well as from trade ministries. The training evaluation showed that 95 Percentage had increased their capacity on the topic of paperless trade and single window implementation. The Masterclass is an intensive two-week capacity building programme intended to build the capacity of Governments to simplify trade procedures and implement paperless trade systems, including single window facilities.

It is delivered by experts and practitioners with extensive experience on trade facilitation and paperless trade in English. Jointly organized by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) and the World Customs Organization (WCO), in collaboration with the Korea Customs Service (KCS) with the support of Customs Cooperation Fund (CCF) Korea, the Masterclass combined lectures with group discussions, hands-on use of paperless trade applications and field visits to maximize learning and interactions among course participants. All the participants successfully completed the Masterclass and issued with UNNExT certificates. The second Masterclass is expected to be organized in October 2014. For more information please visit: <http://www.unescap.org/tid/unnext/masterclass13.asp>

#### 1.5 Global Trade Facilitation Conference 2013

The Global Trade Facilitation Conference 2013, organized by the five UN Regional Commissions took place in Bangkok, Thailand, on 18-19 November 2013, calling on all countries to continue their efforts to cut red tape and simplify trade procedures in order to achieve more sustainable and inclusive development. The conference was organized during the Third Asia-Pacific Trade and Investment Week held by the UN Economic and Social Commission for Asia and the Pacific (ESCAP) and is part of the 'Joint UN Regional Commissions Approach to Trade Facilitation'. Building on the first Conference held in December 2011 in Geneva, the theme of the Global event was 'Beyond Single Window: Paperless Supply Chains for Trade Facilitation and Inclusive Development'. The conference brought together policy makers, private sector service providers and experts from about 40 countries from around the World.

While highlighting the significant performance gaps among countries and regions in terms of trade costs and supply chain connectivity, the conference acknowledged the



significant progress made in many developing countries, including least developed countries, in automating customs procedures and developing national single window and related paperless systems for trade facilitation. In light of the investments being made in national systems and the increasingly stringent supply chain security requirements in major markets, the Conference called on countries and regions to work together to ensure inter-connectivity of paperless trade systems within and across countries. This would ultimately enable the development of paperless supply chains, where all the parties involved in international trade transactions exchange information and documents in electronic rather in paper form, leading to tremendous increase in transparency and efficiency. The regional arrangement for cross-border paperless trade facilitation under discussion among ESCAP Member States could provide a good framework for other World's region, along with related UN/CEFACT recommendations being developed at UNECE.

The conference concluded that moving towards cross-border paperless supply chains was both visionary and timely but stressed that this was a long-term effort that required close collaboration among countries as well as among the public and private sector. Within the public sector, transferring knowledge from Customs to other government agencies (OGAs) involved in trade control would be important as OGAs often lagged behind in terms of use of modern information and communication technologies. Institutionalizing public-private sector collaboration and developing conducive national and international legal frameworks would also be essential. In that context, the conference emphasized the need for development partners to provide sufficient capacity building and technical assistance to developing countries for trade facilitation and paperless trade, in particular least developed and landlocked countries.

#### **1.6 ADB-ESCAP National Training Workshops on Trade and Transport Facilitation Monitoring Mechanism (TTFMM)**

Under the SASEC (South Asia Subregional Economic Cooperation) framework, ESCAP and ADB are working closely with the Governments of Bangladesh, Bhutan and Nepal to establish an Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism (TTFMM) in each of the country, building on a joint ADB-ESCAP Business Process Analysis (BPA) study of trade procedures along key SASEC trade corridors conducted in 2012-13.

As an important step to establish TTFMM, three national training workshops were organized in Phuentsholing, Bhutan on 10-14 March, in Kathmandu, Nepal on 15-17 April and in Dhaka, Bangladesh on 28-29 April by national trade (and transport) facilitation committees, ADB and ESCAP. The workshops in each country were attended by over 40 participants, including the relevant government officials, industry and private sector. Experts from ESCAP, ADB, World Customs Organization (WCO), research institutes and industry shared their expertise at the workshops. The workshops agreed on the corridors and products to be included for the TTFMM



baseline study as well as institutional arrangement and timeframe for undertaking TTFMM.

Planning work for the TTFMM baseline study is ongoing. TTFMM has been jointly developed by ESCAP and ADB, with an aim to providing the countries with a guide on establishing a sustainable trade and transport facilitation monitoring mechanism. The key functions of the TTFMM are two-fold: (1) to formulate/update and prioritize recommendations for advancing trade facilitation; and (2) to measure and assess progress in trade facilitation. It is emphasized that TTFMM should be anchored with national trade and transport facilitation committee (or an equivalent institution) and rely upon national resources to make it sustainable and affordable. Underpinning TTFMM is the methodology called Business Process Analysis Plus (BPA+) which is built on the Business Process Analysis methodology, supplemented by Time Release Studies (TRS) and Time-Cost-Distance (TCD) methodologies. A more detailed discussion of TTFMM is available at: <http://www.unescap.org/resources/towards-national-integrated-and-sustainable-trade-and-transport-facilitation-monitoring>

### **1.7 Seminar on Logistics Performance Index**

The Asia-Pacific Research and Training Network on Trade (ARTNeT) and the UN Network of Experts for Paperless Trade in Asia and the Pacific (UNNExT) and the World Bank organized a joint seminar on the Logistics Performance Index (LPI) Report: The Gap Persists. The seminar discussed the results of the 2014 World Bank Logistics Performance Index, highlighting the ongoing challenges in the region related to trade facilitation logistics and connectivity. It also noted that the LPI is an overall metric for evaluating supply chain efficiency and can provide broad indications on problem areas along the supply chain. To view the publication, please see: [http://lpi.worldbank.org/sites/default/files/LPI\\_Report\\_2014.pdf](http://lpi.worldbank.org/sites/default/files/LPI_Report_2014.pdf)

### **1.8 ESCAP-World Bank Trade Cost Database**

The joint bilateral international trade cost database has been updated with 2012 data. Final checks are ongoing before public release at: <http://artnet.unescap.org/databases.html#first>

### **1.9 SATNET Asia Trainings on Electronic Traceability for Facilitating Trade of Agro-food products and Smallholder Integration in South and Southeast Asia**

The Trade and Investment Division (TID) of ESCAP organized four training events titled Training on Electronic Traceability for Agricultural Trade Facilitation and Smallholder Integration in Bangladesh, Bhutan, Myanmar and Nepal during April and July 2014. The training events were organized under the SATNET Asia (Network for Knowledge Transfer on Sustainable Agriculture Technologies and Improved Market Linkages in South and South-East Asia) project. They were organized in collaboration with the relevant ministries and departments including ministry of



commerce, ministry of agriculture and food regulatory authority. More than hundred participants from public and private sector including department of agriculture, commerce, inspection agencies, customs, agro-food exporters, producers, freight forwarders and research agencies attended the training. Traceability, as explained by Codex Alimentarius, is the ability to follow the movement of a food item through specified stage(s) of production, processing and distribution. Exporters in developing countries are required to implement Traceability to be able to export their products in Europe.

The training was first of its kind in all the four countries. There was a significant interest from the local partners and participants on the topic. Bangladesh was the only country practicing traceability (not electronic) for their shrimp exports. Other countries did not have any such experience. The training events started with a presentation on Agricultural Trade Facilitation in the Asia-Pacific region and Business Process Analysis (BPA) studies in respective countries. The main topic covered by the training included: the theory of electronic traceability, food information systems and design, unique identification, basic supply chain traceability, practical exercise in groups, implementation strategies, what's next in e-traceability. Public and private sector representatives also delivered presentations on agricultural trade facilitation including SPS certification and capacity. Two more such training events were organized in Lao PDR and Cambodia on 13-15 and 18-20 August respectively.



## SECTION II – Knowledge Product and Publication

### 2.1 Asia-Pacific Trade and Investment Report 2013

Along with improving the availability of, and access to trade related infrastructure, streamlining trade procedures has become essential for firms in developing countries to participate effectively in the regional and global production networks that are responsible for an increasing share of global trade flows. This year's Report uses three different metrics to track the progress of regional economies in terms of trade facilitation. Based on the findings of ESCAP's survey, despite the significant overall progress observed, implementation of specific trade facilitation measures in the region's developing economies is generally lacking. Not surprisingly, implementation of trade facilitation and paperless trade varies significantly across Asian countries: Singapore, Japan and the Republic of Korea lead the way, followed closely by Thailand. In contrast, the least developed countries and landlocked developing countries from the region generally remain far behind in overall implementation of trade facilitation and paperless trade. It is encouraging, however, that many of these countries have established national trade facilitation bodies to facilitate both inter-agency and public-private sector collaboration on trade facilitation.

This Report also uses the most recent version of the ESCAP-World Bank Trade Cost Database to review the performance of economies in the Asia-Pacific region. In most cases, it remains costlier to trade between Asian subregions than between Asian subregions and countries or regions outside Asia and the Pacific. For example, the cost of trading between the ASEAN-4 economies (Indonesia, Malaysia, the Philippines and Thailand) and SAARC-4 (Bangladesh, India, Pakistan and Sri Lanka) is almost double than between the ASEAN-4 and the United States. Similarly, trade costs between North and Central Asia and the ASEAN-4 are more than twice those between North and Central Asia and the France, Germany and the United Kingdom (the EU-3).

The third metric used in the Report is a newly designed index measuring the overall trade facilitation performance of a country along the international supply chain. This index is based on the Trading Across Border indicators from the World Bank Doing Business Report and the Liner Shipping Connectivity Index of UNCTAD. The top five world performers (out of 180 economies) in terms of their connectivity to international supply chains are all Asia-Pacific economies, namely, Singapore; Hong Kong, China; the Republic of Korea; China; and Malaysia. In general, countries from East and South-East Asia have better Connectivity Index scores than those from other subregions in Asia and the Pacific. Mongolia, although landlocked, obtains a higher ranking compared to many other developing countries since it uses China's maritime ports.

Much of this year's Report is devoted to an examination of the circumstances under which trade, investment, and trade facilitation can support inclusive growth: that is,



growth which benefits all. The main message of the Report is that the region's dominant export led growth model should not be abandoned but needs to be supplemented by a range of complementary measures and policies, not the least social protection and employment policies to make trade and investment more inclusive. Recommendations related to trade facilitation featured in the report include (1) Improve (behind-the-border) domestic business environment, including availability and access to logistics and financial infrastructure and services, to facilitate sharing and transmission of benefits from trade to micro, small and medium-sized enterprises (MSMEs); (2) Facilitate transfer of technology and build capacity for adoption of paperless trade and e-commerce, especially for MSMEs. (3) Support development of economic corridors for increased participation of the local communities in providing trade support services. (5) Facilitate agricultural trade as part of an overall strategy to address food security, safety, nutrition issues, taking into account both the need for increased income as well as cheaper imports for the poor.

The report is available at: <http://www.unescap.org/tid/publication/aptir2668.asp>

## **2.2 ADB-ESCAP Designing and Implementing Trade Facilitation in Asia and the Pacific 2013 Update**

This is the second edition of Designing and Implementing Trade Facilitation in Asia and the Pacific, co-published by the Asian Development Bank (ADB) and the UN Economics and Social Commission for Asia and the Pacific (ESCAP). Since the first edition was co-published by ADB and ESCAP in 2009, noticeable trade facilitation reforms have been designed and implemented at both domestic and regional levels. Substantial progress in trade facilitation has been observed in many countries in Asia and the Pacific. At the same time, various challenges for further advancing trade facilitation still lie ahead. This reference book aims to support the implementation of trade facilitation measures in Asia and the Pacific. It attempts to bridge the gap between theory and practice in trade facilitation. It provides operational guidance on how to assess the status of trade facilitation, what measures and reforms are necessary, how to design trade facilitation initiatives, how to implement them at national and regional levels, and which organizations can help.

It is available online at: <http://www.unescap.org/tid/publication/adbescapbook13.asp>

## **2.3 Towards a National Integrated and Sustainable Trade and Transport Facilitation Monitoring Mechanism: BPA+**

The global trade facilitation performance surveys and databases now available are useful benchmarking and awareness raising tools, but they do not provide sufficiently detailed information to develop or update national trade facilitation action plans. In addition, while trade and transport facilitation assessments of various scopes are often conducted in least developed countries or landlocked developing countries, these assessments are typically ad-hoc in nature, with little coordination among development partners and limited buy-in by the governmental agencies concerned.



The trade and transport facilitation monitoring mechanism should also provide sufficiently concrete and detailed information so as to enable identification of specific trade facilitation measures to be prioritized for further improvement. Considerations should also be given to ensuring the sustainability of the performance monitoring and improvement mechanism.

It is available online at <http://www.unescap.org/tid/publication/tipub2683.asp>

#### **2.4 Enhancing Regional Connectivity: Towards a Regional Arrangement for the Facilitation of Cross-border Paperless Trade, Studies in Trade and Investment No. 78**

Facilitating cross-border paperless trade poses more challenges than those involved in implementing paperless trade at the national level, mainly because it requires the coordination and harmonization of different legal, regulatory and technical requirements in two or more countries. Prepared by compiling the outcomes from various projects and other work undertaken in the area of cross-border paperless trade, including the implementation of ESCAP Resolution 68/3 and the United Nations Development Account 7th Tranche Project, entitled "Strengthening the capacity of developing and transition economies to link to global supply chains through the reduction of trade obstacles", this publication comprehensively assesses the current status of paperless trade in the region and beyond, elaborates on the need for having regional arrangements to facilitate cross-border paperless trade, and provides specific direction and details for putting a practical regional arrangement in place.

It is available online at <http://www.unescap.org/tid/publication/tipub2684.asp>

#### **2.5 Trade facilitation potential of Asian transit agreements in the context of the WTO negotiations**

This paper examines how freedom of transit and transit facilitation are addressed in trade, transport as well as transit specific agreements in the ESCAP region, with a view to identifying good practices and the extent to which existing agreements meet the transit facilitation provisions set out in the draft text of the WTO trade facilitation agreement (TFA). Following an overview of the provisions on transit found in 153 preferential trade agreements involving ESCAP countries, the study provides a more detailed analysis of a sample of 19 international transport and transit agreements in Asia in terms of their trade facilitation potential. Although some useful provisions for transit facilitation considered during the WTO negotiations did not find their way into the final TFA, the text agreed in Bali strengthens the basis for implementation of freedom of transit in the Asia-Pacific region.

It is available online at <http://www.unescap.org/tid/publication/swp114.pdf>



## **2.6 Impacts of trade facilitation measures on poverty and inclusive growth: Case studies from Asia**

This publication is a compilation of research studies carried out by ARTNeT (Asia-Pacific Research and Training Network) researchers in South, Southeast and East Asian countries. The book starts with a review of existing literature on trade facilitation and definition of poverty reductions and its indicators. It also provides a conceptual framework for trade facilitation and poverty reduction including transmission channels between them.

It is available online at <http://www.unescap.org/tid/publication/tipub2687.pdf>

## **2.7 Economic and Social Survey of Asia and the Pacific 2014: Regional Connectivity for Shared Prosperity**

The survey finds that Asia-Pacific region is already relatively well connected in terms of its transport infrastructure networks, despite there being wide variations in the quality of the infrastructure. However, the region's transport networks are not yet fully operationalized or integrated, leading to underutilization of networks, especially railways. Non-physical barriers at borders also persist, increasing trade and transport costs and delaying the movement of goods and people. By investing in intermodal facilities, such as dry ports, as well as in better physical linkages between different modes, Governments could increase transport options for shippers and traders. Regional intermodal transport networks will play an important role in trade from landlocked developing countries and small island developing States. Greater use of ICT applications for trade and transport facilitation, both behind and at borders, would also improve the efficiency of freight movements and pave the way for the development of paperless trade and e-logistics.

This report looks at the ways in which better regional connectivity can contribute to the sustainable and inclusive development of the Asian and Pacific region. It finds that regional connectivity is inherently multifaceted, and that the benefits of this connectivity may be enhanced by combining different elements. Moreover, it suggests that networks are likely to become more integrated and interdependent as they evolve. Governments therefore have to develop cross-sectoral policies on connectivity, at national, subregional and regional levels. To support further integration of the region, Governments must take the lead in establishing robust institutional frameworks to plan and implement the regional connectivity agenda. Given the significant role played by the private sector and civil society in shaping the region's economic and social development, Governments also need to explore ways to reach out and involve other stakeholders in the development and implementation of such mechanisms. The full report is available at:

<http://www.unescap.org/resources/economic-and-social-survey-asia-and-pacific-2014>



## 2.8 Trade facilitation potential of Asian transit agreements in the context of the WTO

This paper examines how freedom of transit and transit facilitation are addressed in trade and transport (as well as transit-specific) agreements in the ESCAP region. The objective is to identify good practices and understand the extent to which existing agreements meet the transit facilitation provisions set out in the draft text of the WTO trade facilitation agreement (TFA). Following an overview of the provisions on transit found in 153 preferential trade agreements involving ESCAP countries, the study provides a more detailed analysis of a sample of 19 international transport and transit agreements in Asia in terms of their trade facilitation potential. It is available at <http://www.unescap.org/sites/default/files/swp114.pdf>

## 2.9 Estimating the Benefits of Cross-Border Paperless Trade

This report estimates the possible economic benefits—export gains, and cost savings—from partial or full implementation of this set of measures. The approach of this report is to conduct counterfactual simulations: “what if” exercises based on the current reality of cross-border paperless trade implementation, and two ambitious but realistic reform scenarios. It is available at:

<http://www.unescap.org/sites/default/files/Benefits%20of%20Cross-Border%20Paperless%20Trade.pdf>

## 2.10 Enabling Participation of SMEs in International Trade and Production Networks: Trade Facilitation, Trade Finance and Communication Technology

This study aimed at identifying key factors affecting SME participation in direct export and international production networks (IPNs), both globally and in Asia and the Pacific. A global dataset of firm-level data from developing countries was analyzed to identify the main obstacles to establishment and operation of direct and indirect small and medium size exporters. Logit models of SME export and IPN participation revealed the importance of several trade facilitation and related factors. The importance of modern information technology and international quality certification appear to be particularly crucial to participation in IPNs with SMEs using both at least 13% more likely to be involved in such networks. Exporting SMEs both globally as well as in the Asia-pacific region reported access to finance as the key obstacle to their business operations. It is available at:

<http://www.unescap.org/sites/default/files/AWP%20No.%20146.pdf>

## 2.11 Trade Facilitation and Paperless Trade Implementation: 2013/14 Asia-Pacific Update

The Trade Facilitation Agreement adopted by the WTO member countries at the Bali Ministerial Conference in December 2013 highlights the importance of trade



facilitation for international trade and the global economy. This paper provides a unique set of data on the progress made by 29 countries in Asia and the Pacific in implementing various trade facilitation and paperless trade measures in 2013/14, as well as estimates of the benefits from moving forward with implementation. It is available at:

<http://www.unescap.org/sites/default/files/Final%20Survey%2013-14%20Paper.pdf>

### **2.12 Impacts of trade facilitation measures on poverty and inclusive growth: Case studies from Asia**

In the post-crisis world, new drivers of growth are required to drive further reductions in poverty. This new ARTNeT book examines the role of trade facilitation measures in lowering barriers to trade and raising incomes. In addition to a review of relevant literature and theoretical findings, empirical case studies are presented from across the region including: Indonesia, Sri Lanka, Bangladesh, Thailand, and China. It is available at:

<http://www.unescap.org/sites/default/files/impacts%20of%20trade%20facilitation.pdf>

### **2.13 Trade Performance and Competitiveness: Selected Issues Relevant for Asian Developing Economies**

Structural transformation, economic diversification and logistics are some of the issues explored in this new ARTNeT book. The volume's essays use various methodologies to provide new perspectives on the region's growth and prospects. Individual chapter's focus on: trade policy in Nepal; logistics in Bangladesh and Thailand; Sri Lankan exports; and SMEs in Cambodia. It is available at:

[http://www.unescap.org/sites/default/files/Trade%20performance\\_0.pdf](http://www.unescap.org/sites/default/files/Trade%20performance_0.pdf)



## **Pan-Asian E-Commerce Alliance Progress Report**

**PAA**

**32nd AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



## **SECTION I - GENERAL CONDITION UPDATE**

### **1.1 Introduction**

- 1.1.1 The Pan-Asian E-Commerce Alliance is the first regional e-Commerce alliance in Asia that aims to promote and provide secure, trusted, reliable and value-adding IT infrastructure and facilities for efficient global trade and logistics. This includes the mutual recognition of digital certificates issued by members' Certificate Authorities for use in electronic documents exchanged among the parties. Combined membership of the parties now exceeds 200,000 organizations, representing almost all active trading enterprises in the Asian market.
- 1.1.2 Current PAA Members comprise Tradelink of Hong Kong, Trade-Van of Chinese Taipei, CrimsonLogic of Singapore, KTNET of Korea, CIECC of China, NACCS Center of Japan, Dagang Net of Malaysia, TEDMEV of Macau, CAT Telecom of Thailand, InterCommerce of Philippines and PT EDI of Indonesia.

## **SECTION II – EDIFACT/ebXML /XML Based STANDARDS DEVELOPMENT**

### **2.1 Communication Protocol**

- 2.1.1 PAA interconnection Specification was developed based on ebXML MS v2.0 Revision C and ebXML Collaboration Protocol Profile and Agreement v2.0. The specification is approved and endorsed by PAA Steering Committee in February, 2003.
- 2.1.2 All PAA members are currently connected to each other based on the PAA interconnection Specification.

### **2.2 Messaging Standards**

- 2.2.1 PAA uses standard XML as the native syntax for processing managing information to create PAA document format and some were adoption from UBL. It follows some of the guiding principles for XML tools and methodologies such as Compliance with standard UML; Compliance with ebXML where relevant; and etc.
- 2.2.2 The following are some of the PAA documents format for PAA projects:
- Purchase Order
  - Invoice
  - Advance Shipping Notice



- Packing List
- Trade Documents format for Export Declaration
- Certificate of Origin

2.2.3 The following are some of the code list adopted:

- Location Code – UN/LOCODE
- Country code – ISO 3166
- Currency code – ISO 4217
- Unit of measurement – UN/ECE No. 20
- Weight unit – UN/ECE No. 20
- Volume unit – UN/ECE No. 20
- Package type – UN/ECE No. 21
- Mode of transport – UN/ECE No. 19
- Container type – ISO 6346

### **2.3 PKI Mutual Recognition Framework**

2.3.1 The PAA Certificate Policy Authority (“Policy Authority” or “PAA Policy Authority”) was established to define a common Certificate Policy and administer the recognition of the Certificate Policies and Certification Practice Statements (CPS) used by Alliance members against this common Certificate Policy.

PAA Certificate Policy adheres to RFC 2527. CAs are free to adopt their own policies and practices for those areas that do not have any specific stipulations within their CPS, which must also adhere to RFC 2527.

2.3.2 This Certificate Policy (“Policy”) is intended for use within the Public Key Infrastructure (PKI) established by the members of the Alliance as defined and managed by the Pan Asian Certificate Policy Authority Limited (“Authority”).

2.3.3 This Policy contains the set of rules that govern the issuance and use of digital certificates among the members of the Alliance, and indicates the applicability of the certificates to the communities within the Alliance. Specifically, the Policy is intended to support the Alliance and its Members in the following areas:

- Provide high level of assurance that enables secure and reliable transmission of business and transaction documents, and contribute to assuring non-repudiation of business transactions;
- Facilitate inter-connection of network services to provide e-commerce transaction application services for the business community; and
- Support a Pan Asian portal enabling global business connection and communication.



## **SECTION III – TRADE FACILITATION/ eBUSINESS/ eCOMMERCE RELATED PROJECT UPDATES**

### **3.1 Secure Electronic Cross Border Trade Transactions**

Leveraging the PAA legal framework for electronic cross border trade transactions and the mutual recognition of digital certificates amongst members of the alliance, PAA has over the years developed a suite of services and solutions for the PAA economies. We enable and facilitate our customers to exchange trade documents electronically with local and overseas business partners in a secure environment. Through the PAA network, an importer from an importing economy can seamlessly inherit and reuse trade declaration data from the corresponding exporter of an exporting economy for the local trade declaration.

In recent months, we have made significant achievements and contributions for the freight industry. Freight forwarders of various PAA economies can now exchange a range of trade documents such as Commercial Invoice, Packing List, and Bill of Lading with their counterparts both effectively and efficiently.

### **3.2 Electronic Certificate of Origin**

As an APEC Pathfinder initiative, PAA has been actively involved in the development and facilitation of exchange of electronic certificate of origin between import and export economies. It is envisaged that initiative will bring values to both the traders and the government authorities. With the blessing and support from the local authorities, Chinese Taipei and Korea are now going full stream ahead on establishing the first ECO project. The project involves both the public and private sectors from the two economies. It is anticipated that first ECO exchange will be carried out within this year. In the meantime, other economies like Hong Kong, Japan and Singapore are exploring the possibility to participate.



## Reports of Committee/Working Group Chairs

- ✓ Report of Community Support Committee
- ✓ Report of Technology and Methodology Committee
- ✓ Report of Business Domain Committee
  - Report of Travel, Tourism and Leisure (TT&L) Working Group



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## **Committee Progress Report**

### **Community Support Committee**

**32nd AFACT Plenary**  
**Bangkok, Thailand**  
**November 25-27, 2014**



Basically, SCS is mandated to support AFACT Secretariat and Committees to collect information through surveys or to promote the deliverables generated from TMC/BDC. Since 2010 CSC has conducted four surveys, i.e. 1) The survey of needs for training/consultancy in eBusiness and trade facilitation, and resources to provide in the AFACT Community; 2) The Survey of Status on eCOO Implementation in the AFACT Community; 3) Single Window Survey in AFACT Economies; and 4) AFACT Repository of e-Customs / Single Window.

The fourth survey still remains open to continue collecting information from member economies via the vehicle of AFACT Yearbook since 2014.

## **SECTION I – Improvement on AFACT Website**

### **➤ Problems with Documents Maintained on the Website**

- ✓ Inconsistent classification
- ✓ Missing files/hyperlinks
- ✓ Repeated files names
- ✓ Confusing page layout
- ✓ Hard to find documents

### **➤ Suggestions for Improvement**

- ✓ Inconsistent classification
  - ✓ Unify the classification rules (e.g., date, workgroup, or topic)
  - ✓ Missing files/hyperlinks and repeated files
  - ✓ Update the latest files and fix the hyperlinks
  - ✓ Confusing page layout
  - ✓ Use the pull-down menu or key word searching
  - ✓ Put important files or categories on the front page, e.g. AFACT SW Repository, Guidelines of SOA Service Modeling Methodology, AFACT Handbook, etc.
- Mr. Ishigaki, UN/CEFACT Rapporteur for Asia and Pacific, also suggested several times what to improve AFACT Website in order to make it more user friendly and informative. Details are shown in the Appendix.
- AFACT Website has been improved after the discussion carried out in the concall meeting on 2 September 2014. It was suggested that AFACT Secretariat makes introduction to AFACT Website maintenance each year during the session of AFACT Secretariat Status Report at StC meeting. According to the report StC members could better know what has been updated and give more suggestions on further improvement.



## **SECTION II – Joint Meeting Reports with TMC**

### **2.1 TMC-CSC Joint Meeting 2013/11/27 (Ho Chi Minh City, Viet Nam)**

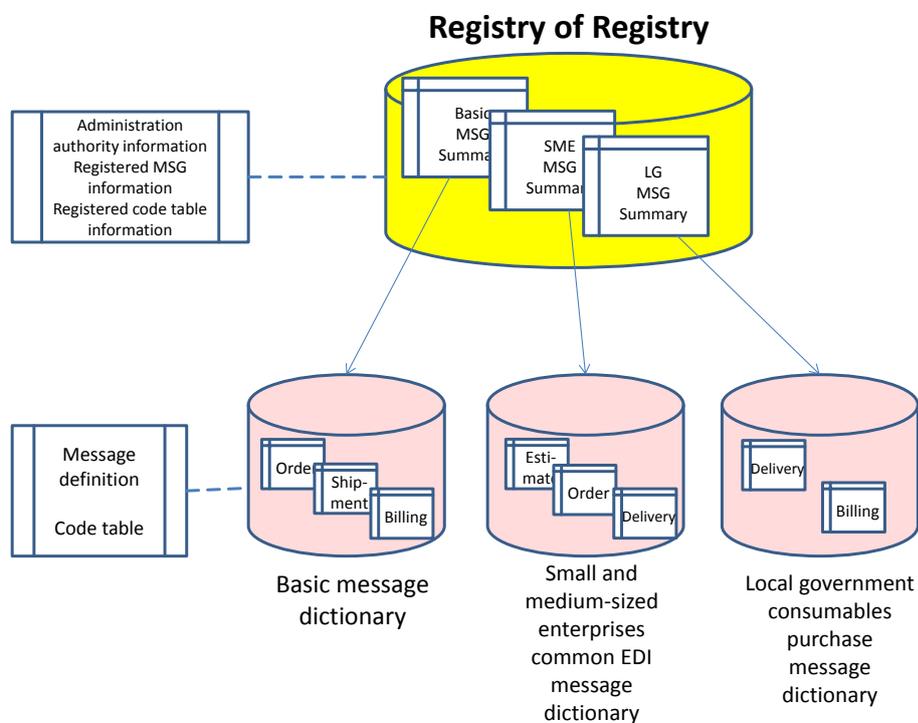
The meeting topics are as follows.

#### (1) UN/CEFACT Update by Hisanao Sugamata

- Integrated Strategy and Programme of Work
  - Ready by end-December for the Plenary in April 2014
- Supply Chain PDA Strategic Plan Workshop
  - Reconstruct the Buy-Ship-Pay model
  - The new project for Supply Chain Finance : PO Finance
- Sectoral PDA projects from Asia
  - Utility Domain : Reutilization of Data from Utility Management Systems
  - Travel/Tourism Domain : SLH and DTI
- Bureau Program Support
  - CCL 13A published:
    - CCs : 6293
    - BIEs : 9823
    - XML Messages : 90

#### (2) CCL Utilization in Asia by Hisanao Sugamata (HS)

- HS has circulated “White Paper for UN/CEFACT CCL Utilization in Japan” this September. The white paper is adopted by TMC with some editorial corrections.
  - TMC decided to post the white paper on the AFACT website with the promotional message by CSC Chair (Eva Youh (EY)).
- HS introduced the concept of AFACT Registry of Registry for finding and referencing the specifications of Business Process models and EDI Messages.
  - HS informed that SIPS (Supply Chain Information Platform Study Group of Japan) has started to design the Registry of Registry for cross industry interoperability in Japanese.



Pilot case of Registry of Registry in Japan

- Action agreed:
  - ✧ EY prepares the introductory message for publishing “White Paper for UN/CEFACT CCL Utilization in Japan”.
  - ✧ TMC and CSC request AFACT Secretariat to publish the white paper on the AFACT website.
  - ✧ HS will report the experience through developing Registry of Registry by SIPS in Japan at the next AFACT intermediary meeting.

(3) SOA Interoperability Framework by Youngkon Lee (YL)

- YL reported that he has not received any comments on the guideline of SOA Service Modeling Methodology.
- Action agreed:
  - ✧ TMC requests AFACT Secretariat to publish the guideline of SOA Service Modeling Methodology

(4) The new project on Cloud Computing

- Zonyin Shae (ZS) from Chinese Taipei made a presentation on the new WG proposal for Cloud Computing.
  - ✧ Objectives:



- For migrating applications to Cloud Computing.
- For portability of applications on the Cloud.
- For interoperability among the Clouds.
- ✧ Focusing specifications:
  - OVF : DMTF Open Virtualization Format
  - TOSCA : OASIS Topology and Orchestration Specification for Cloud Application
- ✧ The 1<sup>st</sup> deliverable:
  - Portability practice Guideline
- Action agreed
  - ✧ ZS will prepare the project proposal including Objectives, Scope, Deliverables, Activities and Schedule.
  - ✧ HS will circulate the project proposal for comments and will ask to join the project.

## 2.2 TMC-CSC Joint Meeting 2014/05/29 (Chiang Mai, Thailand)

The meeting topics are as follows.

### (1) UN/CEFACT Update by Hisanao Sugamata (HS)

- M&T PDA New Projects
  - ➔Information Note on Standards Conformance and Interoperability
  - ➔Library Review
- Supply Chain PDA New project
  - ➔Purchase Order Financing Request
- EU Directive: Public Procurement
  - ➔eTendering : To be implemented by 2017
  - ➔eInvoice: To be implemented by 2020
- Bureau Program Support
  - ➔CCL 13B published:
    - CCs : 6391
    - BIEs : 10089
    - XML Messages : 94

### (2) CCL Utilization in Asia by Hisanao Sugamata (HS)

- HS introduced Registry Procedure and Registry Data Model based on ISO 19763-6 for CIDL (Cross Industry Data Library) framework in Japan.
- HS introduced 2014 action plans in Japan by SIPS (Supply Chain Information Platform Study Group).
  1. Expand Domain Message Dictionaries for Japanese Industries
    - Aircraft manufacturing industry



- Automobile parts makers (SME)
    - Payment instruction for PO Finance
  - 2. POC of Domain Message in Bangkok for Japanese originated company
  - 3. Investigate and try XML embedded PDF message with Signature
  - 4. POC for Registry for Domain Message Dictionaries in Japan
  - HS proposed action plans for AFACT
    1. Translate UN/CCL in the domestic language
    2. Define Domain Messages based on UN/CCL
    3. Establish Registry for Domain Messages in each country
  - Issues by participants
    1. Refer to ISO26324 (specifies the syntax, description and resolution functional components of the digital object identifier system, and the general principles for the creation, registration and administration of DOI names.)
    2. Consider the objective of ROR (Registry of Registry) referring to the experience in Korea (REMKO).
    3. Common Repository requirement in AFACT to be considered.
    4. Implementation and Operation of AFACT ROR to be assessed. (Who and How).
  - Action agreed
    - ✧ HS will prepare the demonstration kit for Japanese registry.
    - ✧ Eva Yueh (EY) will make a plan to promote CIDL Framework using the demonstration kit.
- (3) SOA Interoperability Framework by Youngkon Lee (YL)
- YL reported that he has finalized the guideline of SOA Service Modeling Methodology and it was published.
  - Action agreed:
    - ✧ TMC temporary closed the project and waiting the next emerging project on SOA implementation.
    - ✧ Ask the secretariat to publish the guideline on AFACT website.
- (4) The new project on Cloud Computing
- Zonyin Shae (ZS) from Chinese Taipei made a presentation on the new WG proposal for Cloud Computing.
    - ✧ Objectives:
      - To establish a standard format and mechanism for the interoperable virtual appliance marketplace for the cloud applications



- Deploying applications and services in standards-compliant environment avoids vendor lock-in and enables “AppStore” for Cloud applications and services.
- ZS also introduced the TT&L application based on Cloud Computing.
- Action agreed
  - ✧ TMC proposes the new WG named “Cloud Computing” under TMC to Steering Committee.

(5) eInvoicing status and the new approach using PDF/XML

- Wanawit Ahkuputra (WA) made 3 presentations as follows.
  - Electronic Invoicing in Europe  
In EU, eInvoicing project is started using UN/CEFACT CII. This situation may be useful for BDC.
  - Intelligent Form implementation in Thailand  
TMC will continue to study XML Forms Architecture (XML/PDF) for promoting CCL in Asian region.
  - Cross Industry Invoice implementation in Thailand  
ETDA implementation of OID for Registry and CMR (Code and Message Repository) should be referred in the project of ROR for AFACT.



## Appendix

2014-8-15

An idea of enhancing AFACT official website

M.Ishigaki (JASTPRO)

The official website of UN/CEFACT will be a good guidance.

### 1. Home page

The screenshot shows the UN/CEFACT website home page. The header includes the UNECE logo and the text 'United Nations Economic Commission for Europe'. Below the header is a navigation menu with links like 'Home', 'About UNECE', 'Main areas of work', and 'Information resources'. The main content area is divided into three columns:

- Trade:** Contains a sub-menu for 'UN/CEFACT Home' with links to 'About us', 'Projects', 'Outputs', 'Meetings and Events', 'Publications', 'Join UN/CEFACT', 'Policies, Procedures and Terms of Reference', 'National Trade Facilitation bodies and TFWG Repository', and 'Contact us'.
- News:** Contains three news items:
  - 11 August 2014:** UN/CEFACT BPS Validation Team has approved the Core Component Library D.14A for publication.
  - 4 August 2014:** An error was found in revision 4 of Recommendation 28 code list where three items were omitted during the latest update. Now the correction has been made and the correct file uploaded as revision 4.1 of the code list.
  - 17 July 2014:** A 60 day public review is open for the proposed recommendation of Consultation Approaches, started in 2010. This proposed recommendation provide support to countries implementing the WTO Trade Facilitation Agreement; it also complements the UNECE Recommendation 4 on National Trade Facilitation Bodies. This proposed recommendation proposes clear guidance on how to set up effective consultation in a way which is acceptable to both
- Meetings and Events:** Contains a calendar for August 2014 and a list of upcoming events:
  - 24th UN/CEFACT Forum (27 - 31 October 2014) New Delhi, India**
  - 21st Session - UN/CEFACT Plenary (16 - 17 February 2015) Palais des Nations, Geneva, Switzerland**
  - 25th UN/CEFACT Forum (20 - 24 April 2015) Palais des Nations, Geneva, Switzerland**

a. The idea of directories placed vertically in the Left is better than our AFACT homepage described horizontally.

You can provide many items with flexible structure vertically rather than horizontally.

When you want to place the SOA Interoperability Framework' in the website, for example, you can provide a new entry in this directory or you can provide a new entry under 'Outputs'.

b. 'News' column is located in the center.

Our AFACT website should have 'News' column.

Users can find quickly what occurred as AFACT activity.



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A news can have linkage to the proper holder or relevant document.

- c. Meeting and Events column is located at right side.  
This idea is similar to our AFACT website.  
So it is ok.

2. Details about each event

The screenshot shows the UNECE website interface. The main content area displays the following information:

- 20th Session - UN/CEFACT Plenary** (Go to Previous Page)
- 10 - 11 April 2014
- Room XXIII, Palais des Nations, Geneva, Switzerland

Navigation tabs are provided for: Session documents, Miscellaneous documents, and Presentations.

Document Title	Document Symbol	ENG	FRE	RUS
<a href="#">Download all documents</a> <a href="#">ZIP</a> <a href="#">ZIP</a> <a href="#">ZIP</a>				
<b>Item 1 : Adoption of the agenda</b>				
Draft Agenda	ECE/TRADE/C/CEFACT/2014/1	<a href="#">PDF</a>	<a href="#">PDF</a>	<a href="#">PDF</a>
<b>Item 2 - Matters arising since the nineteenth session</b>				
Matters arising since the nineteenth Plenary	ECE/TRADE/C/CEFACT/2014/3	<a href="#">PDF</a>	-	-
<b>Item 3 - Bureau overview of recent developments</b>				
<b>Item 4 - Reports of rapporteurs</b>				
Report of Rapporteur for Africa	ECE/TRADE/C/CEFACT/2014/4	<a href="#">PDF</a>	<a href="#">PDF</a>	<a href="#">PDF</a>
Report of Rapporteur for Asia and the Pacific	ECE/TRADE/C/CEFACT/2014/5	<a href="#">PDF</a>	<a href="#">PDF</a>	<a href="#">PDF</a>
<b>Item 5 - UN/CEFACT recommendations and standards</b>				
<b>a) Recommendation for approval</b>				
Revised Recommendation 14, Authentication of Trade Documents by means other than a Signature	ECE/TRADE/C/CEFACT/2014/6	<a href="#">PDF</a>	<a href="#">PDF</a>	<a href="#">PDF</a>

Above sample is as to 20<sup>th</sup> Plenary sessions.

In this case, three Tabs are provided (Session Documents/ Miscellaneous documents/ Presentation).

It is very good that all meeting documents are stored at one page while our AFACT web provides two locations, one for 'Documents' in Home page and the other is in each Event page which is very troublesome.



**Committee Progress Report**  
**Technology and Methodology Committee**

**32nd AFACT Plenary**  
**Bangkok, Thailand**  
**November 25-27, 2014**



## **SECTION I - Committee Members**

There are 10 participants from 5 countries/economies during 2013-2014.

Chinese Taipei

Eva Yueh, Mei Li Chen, Ethan Hung, Zonyin Shae

India

Ambreesh Kumr, Anil Kumar Sinha

Japan

Hisanao Sugamata

Korea

Youngkon Lee

Thailand

Wanawit Ahkuputra, Suchayapim Siriwat

## **SECTION II – Meeting Reports**

### **2.1 TMC-CSC Joint Meeting 2013/11/27 (Ho Chi Minh City, Viet Nam)**

The meeting topics are as follows.

#### (1) UN/CEFACT Update by Hisanao Sugamata

- Integrated Strategy and Programme of Work
  - Ready by end-December for the Plenary in April 2014
- Supply Chain PDA Strategic Plan Workshop
  - Reconstruct the Buy-Ship-Pay model
  - The new project for Supply Chain Finance : PO Finance
- Sectoral PDA projects from Asia
  - Utility Domain : Reutilization of Data from Utility Management Systems
  - Travel/Tourism Domain : SLH and DTI
- Bureau Program Support
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    - CCs : 6293
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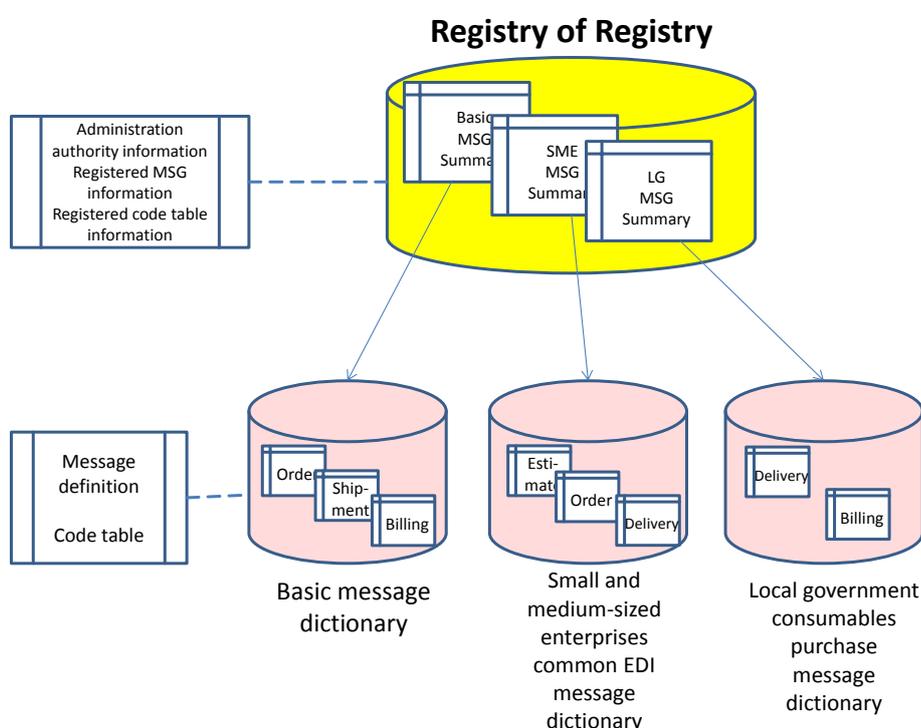
- HS has circulated “White Paper for UN/CEFACT CCL Utilization in Japan” this September. The white paper is adopted by TMC with some editorial corrections.



TMC decided to post the white paper on the AFACT website with the promotional message by CSC Chair (Eva Youh (EY)).

- HS introduced the concept of AFACT Registry of Registry for finding and referencing the specifications of Business Process models and EDI Messages.

HS informed that SIPS (Supply Chain Information Platform Study Group of Japan) has started to design the Registry of Registry for cross industry interoperability in Japanese.



**Pilot case of Registry of Registry in Japan**

- Action agreed:
  - ✧ EY prepares the introductory message for publishing “White Paper for UN/CEFACT CCL Utilization in Japan”.
  - ✧ TMC and CSC request AFACT Secretariat to publish the white paper on the AFACT website.
  - ✧ HS will report the experience through developing Registry of Registry by SIPS in Japan at the next AFACT intermediary meeting.

(3) SOA Interoperability Framework by Youngkon Lee (YL)



- YL reported that he has not received any comments on the guideline of SOA Service Modeling Methodology.
  - Action agreed:
    - ✧ TMC requests AFACT Secretariat to publish the guideline of SOA Service Modeling Methodology
- (4) The new project on Cloud Computing
- Zonyin Shae (ZS) from Chinese Taipei made a presentation on the new WG proposal for Cloud Computing.
    - ✧ Objectives:
      - For migrating applications to Cloud Computing.
      - For portability of applications on the Cloud.
      - For interoperability among the Clouds.
    - ✧ Focusing specifications:
      - OVF : DMTF Open Virtualization Format
      - TOSCA : OASIS Topology and Orchestration Specification for Cloud Application
    - ✧ The 1<sup>st</sup> deliverable:
      - Portability practice Guideline
  - Action agreed
    - ✧ ZS will prepare the project proposal including Objectives, Scope, Deliverables, Activities and Schedule.
    - ✧ HS will circulate the project proposal for comments and will ask to join the project.

## 2.2 TMC-CSC Joint Meeting 2014/05/29 (Chiang Mai, Thailand)

The meeting topics are as follows.

### (1) UN/CEFACT Update by Hisanao Sugamata (HS)

- M&T PDA New Projects
  - ➔Information Note on Standards Conformance and Interoperability
  - ➔Library Review
- Supply Chain PDA New project
  - ➔Purchase Order Financing Request
- EU Directive: Public Procurement
  - ➔eTendering : To be implemented by 2017
  - ➔eInvoice: To be implemented by 2020
- Bureau Program Support
  - ➔CCL 13B published:
    - CCs : 6391



- BIEs : 10089
- XML Messages : 94

(2) CCL Utilization in Asia by Hisanao Sugamata (HS)

- HS introduced Registry Procedure and Registry Data Model based on ISO 19763-6 for CIDL (Cross Industry Data Library) framework in Japan.
- HS introduced 2014 action plans in Japan by SIPS (Supply Chain Information Platform Study Group).
  1. Expand Domain Message Dictionaries for Japanese Industries
    - Aircraft manufacturing industry
    - Automobile parts makers (SME)
    - Payment instruction for PO Finance
  2. POC of Domain Message in Bangkok for Japanese originated company
  3. Investigate and try XML embedded PDF message with Signature
  4. POC for Registry for Domain Message Dictionaries in Japan
- HS proposed action plans for AFACT
  1. Translate UN/CCL in the domestic language
  2. Define Domain Messages based on UN/CCL
  3. Establish Registry for Domain Messages in each country
- Issues by participants
  1. Refer to ISO26324 (specifies the syntax, description and resolution functional components of the digital object identifier system, and the general principles for the creation, registration and administration of DOI names.)
  2. Consider the objective of ROR (Registry of Registry) referring to the experience in Korea (REMKO).
  3. Common Repository requirement in AFACT to be considered.
  4. Implementation and Operation of AFACT ROR to be assessed. (Who and How).
- Action agreed
  - ✧ HS will prepare the demonstration kit for Japanese registry.
  - ✧ Eva Yueh (EY) will make a plan to promote CIDL Framework using the demonstration kit.

(3) SOA Interoperability Framework by Youngkon Lee (YL)



- YL reported that he has finalized the guideline of SOA Service Modeling Methodology and it was published.
- Action agreed:
  - ✧ TMC temporary closed the project and waiting the next emerging project on SOA implementation.
  - ✧ Ask the secretariat to publish the guideline on AFACT website.

(4) The new project on Cloud Computing

- Zonyin Shae (ZS) from Chinese Taipei made a presentation on the new WG proposal for Cloud Computing.
  - ✧ Objectives:
    - To establish a standard format and mechanism for the interoperable virtual appliance marketplace for the cloud applications
    - Deploying applications and services in standards-compliant environment avoids vendor lock-in and enables “AppStore” for Cloud applications and services.
- ZS also introduced the TT&L application based on Cloud Computing.
- Action agreed
  - ✧ TMC proposes the new WG named “Cloud Computing” under TMC to Steering Committee.

(5) eInvoicing status and the new approach using PDF/XML

- Wanawit Ahkputra (WA) made 3 presentations as follows.
  - Electronic Invoicing in Europe  
In EU, eInvoicing project is started using UN/CEFACT CII. This situation may be useful for BDC.
  - Intelligent Form implementation in Thailand  
TMC will continue to study XML Forms Architecture (XML/PDF) for promoting CCL in Asian region.
  - Cross Industry Invoice implementation in Thailand  
ETDA implementation of OID for Registry and CMR (Code and Message Repository) should be referred in the project of ROR for AFACT.

## SECTION III – Projects Reports

### 3.1 Technology and Methodology Committee (TMC) Terms of Reference

#### 1. Name of the committee

Technology and Methodology Committee



( hereinafter referred to as “TMC” )

## 2. Purpose

TMC is to promote the implementation of eBusiness Technologies and Methodologies based on eBusiness standards for facilitating e-Business / e-Trade in Asia Pacific Region, in order to enable a global electronic marketplace where enterprises of any size and in any geographical location can meet and conduct business with each other.

TMC contributes the global business standardization activities of UN/CEFACT, OASIS and other international organizations for standardization and trade facilitation through harmonization and interoperability in e-Business / e-Trade.

## 3. Work Scope

TMC will handle the issues of interoperability, productivity (reusability, openness), using Technology and Methodology in e-Business / e-Trade.

The scope of work subject may include as follows.

- Reference framework (Technology, Methodology and Library) for eBusiness
- Modeling Methodologies
- Core Component Harmonization (may include Metadata)
- Context methodology (may include Ontology)
- Message Assembly
- XML Schema Design
- Messaging Service Protocol
- SOA
- Registry and Repository
- Securities

## 4. Deliverables

Deliverables of TMC are expected as follows.

- Guideline for Reference framework (Technology, Methodology And Library) for eBusiness
- Submission DMRs for CCL
- Core Component Libraries (CCL) in Asian region
- Business Process Library in Asian region
- Implementation Guidelines for CCL and other relevant data models used in Asian Region
- Message Assembly Guidelines
- Interoperability Test Specifications and Certificates
- Registry Guidelines (may include Federation)
- Security Guidelines for e-Business



*2014 AFACT Year Book*  
*Asia Pacific Council for Trade Facilitation and Electronic Business*

#### 5. Membership and Structure

TMC is an executive committee under AFACT.

TMC may have several working groups, such as Core Component Working Group, Interoperability Promotion Group, Security Group.

Members of TMC are consists of the person who is representing the member of AFACT.

Participants of TMC are open to any organizations who are interested in e-Business implementation in the Asia Pacific region.

#### 6. Organization

TMC has a Chairperson.

The chairperson is elected by the member of TMC, and ratified by the AFACT Plenary. The chairperson will serve two years term. The chairperson can be re-elected.

The duties of the chairperson are as follows.

- 1.Call to order and preside over meetings and prepare those agenda
  - 2.Facilitate Working Groups
  - 3.Report activities and results of TMC to AFACT Plenary
  - 4.Communicate the official position on the matter of Technology or Methodology to UN/CEFACT Working Groups, OASIS TCs and related standard bodies
- TMC may have Working Groups (hereinafter referred to as the "WG").

WGs are subject to be approved by TMC and to be endorsed by Plenary. Establishment each WG should be supported by at least three AFACT members.

To establish a WG under TMC, the interested parties shall submit an expression of interest, Objectives, Scope, a terms of reference and an initial work program to TMC for approval. TMC propose the new WG to Plenary for endorsement.

Each WG shall appoint its own Convener, and may appoint a WG Secretariat whenever necessary. The term of office for the Convener and the WG Secretariat if it is appointed, shall be for a period of two years.

The Convener of each WG shall report its activities to TMC and report to Plenary as requested.

#### 7. Voting Procedure



There are 2 types of voting in TMC, the member voting and the participant voting.

The member voting shall be taken for the following cases.

- 1) Election of TMC Chairperson
- 2) Amendment of TMC ToR
- 3) Creation or Disbandment of WG

The participant voting may be taken for the other cases of the member voting, such as technical matters, working programs.

The objective within TMC is to achieve a consistent consensus in all matters. In case of doubt concerning consensus, then, and only then, shall a vote be taken in an official TMC meeting. Any participants who feel that a consensus has not been reached may call for a vote, while the chairperson declares consensus. These ballots require a simple majority of the members (the case of the member voting) or the participants (the case of participants voting) attended at the official meeting at the time of the vote. Any voting can be taken when at least 3 members are present at the meeting. The use of proxies shall not be permitted. The chairperson is not eligible to vote.

#### 8. Frequency of the Meeting

The meetings shall be held under the coordination of AFACT. Therefore the meeting may be held with AFACT plenary meeting and AFACT midterm steering committee meeting. The chairperson can call for the interim meetings between AFACT meetings. The chairperson can organize the teleconference instead of the face to face meeting.

#### 9. Official Language

English

### **3.2 CCL Utilization in Asia**

TMC has a program of work.

1. Name: CCL utilization in Asia
2. Background:

- UN/CEFACT CCL is getting too big for covering many domains. It is getting difficult to find the suitable CCs/BIEs in CCL for message designers, and there are concerns about the computer performance using the big XML Scheme modules always.
- There are several data model libraries other than UN/CEFACT CCL, such as GS1, OAGI, WCO, UBL and local implementations in Asian region. Many of them are developed using CCTS, but there are no interoperability.



- UN/CEFACT Standard Message has a lot of BIEs in order to cover various domains. But user needs a small part of BIEs for daily EDI, but he has to implement all the parts of the Standard Message.

3. Objective:

To establish the methodology for utilizing CCL in the efficient manner, and to promote the methodology implementation in the Asian region.

4. Work items:

- Analyze the actual problems around CCL.
- Prepare the framework for utilizing CCL.
- Define the packaged CCL for Asian Region.
- POC for utilizing CCL.
- Prepare the guidelines for utilizing CCL.

5. Deliverables:

- CCL Framework (based on CCTS V3 and NDR V3)
- Pilot packaged CCL for Asian Region
- Guidelines for utilizing CCL

### **3.3 Single Window Interoperability Framework**

TMC has established a Working Group.

1. Name: SWIF(Single Window Interoperability Framework) WG
2. Membership and Structure

The members of AFACT could join SWIF WG as a primary member. Any individual or organization who is interested in e-business and trade in Asia Pacific region could join as an observer member.

3. Objective

For realizing single window, interoperability is a most critical issue in technical area. Nowadays, SOA is becoming rapidly core technical framework for most technical areas, which could be best solution for ensuring interoperability. Many governments are adopting SOA for connecting various systems for interoperability. Also, many big companies introduce SOA as their main software backbone systems. SOA enables very easy connection and communication among software systems with low cost by loosely-coupled mechanism. Single window or e-trading requires complex connection mechanism among systems developed by various stakeholders.

This SWIF WG will study and provide a guideline and standard for implementing interoperability framework based on SOA. Even though SOA is a good solution for single window, most people have different ideas in implementing SOA system



because SOA is now concept-oriented. So, SWIF WG will provide a guideline for implementing single window with interoperability framework. It can be a practical and detailed guideline for single window system, which also could be helpful in operating e-trading system.

#### 4. Work items

This project requires following work items.

1. Analysis for interoperability framework on SOA
2. Analysis for e-trading business in Asia
3. Study for SOA design methodology for SW
4. Define the interface of components for SW
5. Make a guideline and a work template
6. Test guideline for SOA

#### 5. Deliverables:

1. Analysis report of Asia e-trading business
2. A guideline and a work template for SOA in SW
3. A standard for definition of component interface
4. Test guideline

### **3.4 Cloud Computing Working Group**

TMC has established a Working Group.

1. Name: Cloud Computing Working Group
2. Background

- Deploying applications into cloud infrastructure has become a major business service model, and it will grow even bigger for the future to come.

- Cloud service providers in the market currently lock-in the applications and services deployed in its infrastructure. There is no interoperability. It is very difficult migrating applications and services between clouds.

- Many international standards are currently addressing the issues. Regarding of hardware standardization, there are Open Computing

Project (OCP), Open Network Foundation (ONF), and Storage Networking Industry Association. Regarding of Cloud OS standardization, there are OpenStack, CloudStack, and Open Grid Forum. Regarding of Cloud Service QOS, there are Open Data Center Alliance, Cloud Standards

Customer Council, and Object Management Group. Regarding of virtualization management standardization, there are DMTF Open Virtualization Format (OVF),



DMTF Common Information Model (CIM), and DMTF Cloud Infrastructure Management Interface (CIMI). Regarding of cloud application standardization, there are Open Services for Lifecycle Collaboration (OSLC), and OASIS Service Component Architecture. This WG will focus on the DMTF and TOSCA (OASIS) which provide mechanisms based on OVF (Open Virtualization Format) for the application migrating between clouds. .

- There are many applications and services with various properties and requirements. Users need a best practice guideline how to make use of the standard mechanisms for migrating application into cloud and between clouds.

### 3. Objective

To establish the best practice for utilizing DMTF and TOSCA international standard for migrating applications and services into cloud and between clouds. Deploying applications and services in standards-compliant environment avoids vendor lock-in and enables “AppStore” for Cloud applications and services.

### 4. Work items

- Identify a set of applications for migration into clouds.
- Analyze applications for migration (OS, CPU, memory, network, storage, configurations, and database).
- Define OVF for applications.
- Migrate applications into specified cloud infrastructures.
- Migrate the applications between clouds (Vmware, EC2, KVM,Hyper-V, and Xen Server)
- Prepare the guidelines for utilizing OVF.

### 5. Deliverables

- Define OVF for selected applications
- Pilot projects packaged for cloud migration interoperability using OVF
- Guidelines for utilizing OVF



**Committee Progress Report**  
**Business Domain Committee**

**32rd AFACT Plenary**  
**Bangkok, Thailand**  
**November 25-27, 2014**



## SECTION I - Introduction

### 1.1 BDC Mission

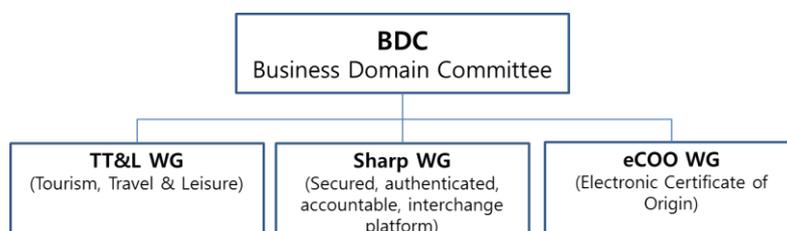
The Business Domain Committee (hereinafter referred to as “BDC”) is to be responsible for the simplification of international trade procedures, business and governmental process analysis, and best practices, using the UN/CEFACT Modeling Methodology where appropriate to support the development of trade facilitation and electronic business solutions.

### 1.2 BDC Working Scope

- (a) Identification, simplification, harmonization and alignment of public and private sector practices, procedures and information flows relating to international trade transactions both in goods and related services;
- (b) Specification of common business and governmental processes and reference models;
- (c) Harmonization of cross-industry business and governmental processes;
- (d) To disseminate the UN/CEFACT Recommendations, implementation guidelines and other relevant instruments for trade facilitation including best practices and implementation guidelines;
- (e) Development and maintenance of common business and governmental processes (including reference models);
- (f) Harmonized business and governmental requirements e.g. harmonized cross-domain process models and core components;
- (g) Identification of factors constraining more effective business practices/processes;
- (h) Analyze international trade procedures and identify barriers / constraints;

### 1.3 BDC Organization, 2013~2014

During 2013~2014, there are three working groups in BDC. TT&L WG has operated independently and Sharp WG and eCOO WG have worked together due to the technical dependency.





BDC meetings were chaired by Jasmine Jaegyong Chang (NIPA, KR) :

- **TT&L meetings** were chaired by Akio Suzuki(JP) and joined by 12 attendees (included 2 virtual attendees) from 6 countries.
- **Sharp and eCOO meetings** were chaired by Jasmine Jaegyong Chang and joined by 27 attendees from 8 country members and one international body.

## SECTION II – BDC Meeting Reports

This chapter only covers only the activities of Sharp WG and eCOO WG. The activities of TT&L WG is reported in other chapter.

### 2.1 Ho Chi Minh BDC Meeting (2013/11/27)

#### 2.1.1 Meeting Information

- Venue : Nguyen Tat Thanh University, Ho Chi Minh City, Vietnam
- Participation : 15 attendees from 6 countries

- ◆ Iran (2) : Mahmood Zargar,
- ◆ India(4) : Raj Kumar Arora
- ◆ Japan(1) : Mitsuru Ishigaki
- ◆ Korea(5) : Jasmine Jaegyong Chang, Seokgu Ji, Songpil Kong, Yongkon Lee, Seki Ahn, Hyuncheol Chung,
- ◆ Sri Lanka(1) : Shanta De Silva
- ◆ Thailand(2) : Urachada Ketprom,

#### 2.1.2 BDC Chair's report

Several years ago a number of working items was suggested at BDC, but most of them were no longer activated. Only eCOO working item among them was opened, but while its global progress had not been going well, chair of eCOO WG wanted to have the co-operation with Sharp WG in the aspect secure technology like PKI is closely interrelated to certify the originality.

Meeting was discussed about trusted and paperless communication, legal evidence resulted from e-communication, e-identity and its mutual recognition of PKI, open source and so on. These topics are closely interrelated to the paperless environment.

#### 2.1.3 Major issues

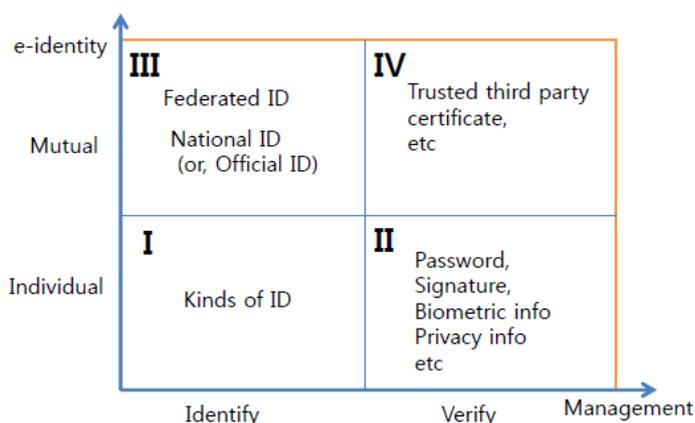
##### (1) **Management of e-Identity for Cross Borders** by NIPA Korea

- This project was proposed at 22nd UN/CEFACT Forum in Italy Shardenia meeting on 14~18, October 2013 by NIPA, Korea.



- WG members shared the issues as a working item in AFACT BDC and the importance of its interoperability.

### Scope: Interoperability of e-identity

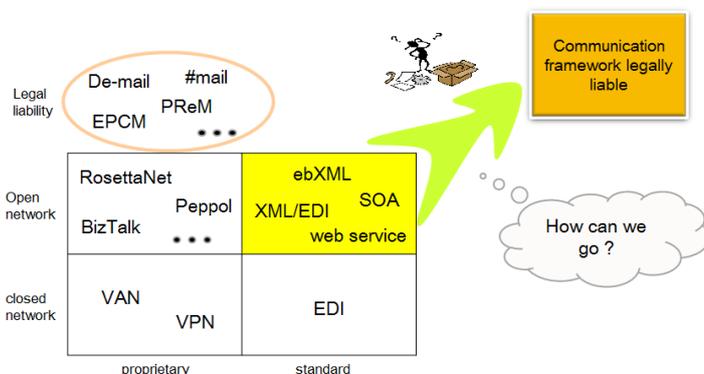


- In AFACT member countries, there are some kinds of national ID and PKI schemes. We need sharing information about each country' national scheme.

### (2) Trusted Communication Platform for Electronic Documents by NIPA, Korea

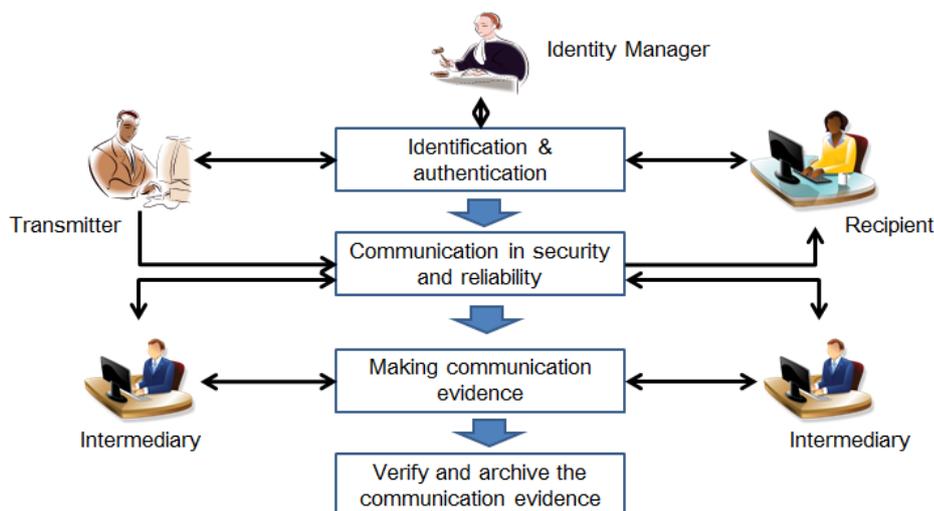
- This project was proposed by NIPA, Korea to ISO TC 154 and approved as new work item at 32nd ISO TC154 Berlin meeting on 21~25, October 2013
- Definition of TCP(Trusted Communication Platform):
  - A platform enabling communication of electronic documents on legal liability by open architecture on open network

#### 1.1 Background





- Mechanism(Process) of trusted communication



(3) **Tutorials for trusted communication technology** by Youngkon Lee

- Background understanding of technology

- SOAP
- WS-Security, WS-Reliability
- PKI Technology
- Hash Functions
- Symmetric key cryptography.
- Asymmetric key cryptography
- Public key
- Certificate authority
- Registration authority
- Certificate

(4) **Open source policy** by NIPA Korea

- Introduction about the open source activities both in Korea and in global
- The policy of NIPA Korea about its open source
- The plan to open the open source community to AFACT members

(5) **Indian Country Report 'Indian regulations regarding recognition of foreign certifying authorities : Facilitating cross-border trade and investments using digital signatures'** by Tahseen A. Kahn, India

- The needs of mutual recognition about national certificate authorities
- E-Identity project includes this scheme

(6) **Iran Country Report 'As-is and to be of Iran PKI'** by Reza Javadinia, Iran



- The current status and future direction of PKI for further implementation in Iran

## **2.2 Chiang Mai BDC Meeting (2013/11/27)**

### **2.2.1 Meeting Information**

- Venue : Le Meridien Chiang Mai Hotel, Chiang Mai, Thailand
- Attendees : 12 attendees from 7 countries and 1 international body:
  - ◆ Chinese Taipei (1) : Mei-Li Chen,
  - ◆ Iran (1) : Mahmood Zargar,
  - ◆ India(1) : Anil Kumar Singha,
  - ◆ Japan(1) : Mitsuru Ishigaki,
  - ◆ Korea(3) : Jasmine Jaegyong Chang , Songpil Kong, Youngsik Kim,
  - ◆ Vietnam(1) : Van Thi Hong Tran,
  - ◆ Thailand(3) : Urachada Ketprom, Orachat Leingpeboon, Nattarat Techatit,
  - ◆ UN/ESCAP(1) : Sangwon Lim

### **2.2.2 BDC Chair's report**

BDC group updated progress of UN/CEFACT and European Union. We discussed its implications and issues such as the bottlenecks and problems in Asia and Pacific region regarding BDC scope. BDC Chair emphasized on the need to facilitate the trusted way of electronic platforms of e-trade, e-business and e-government in Asia and Pacific region. It means a trustworthy way to be able to do business safely and effectively and ensure the legal validity about electronic transactions.

BDC group discussed about the legal approach in the view of electronic transactions and shared each member countries' status through a BDC survey in order to shape up AFACT approach in future.

### **2.2.3 Major issues**

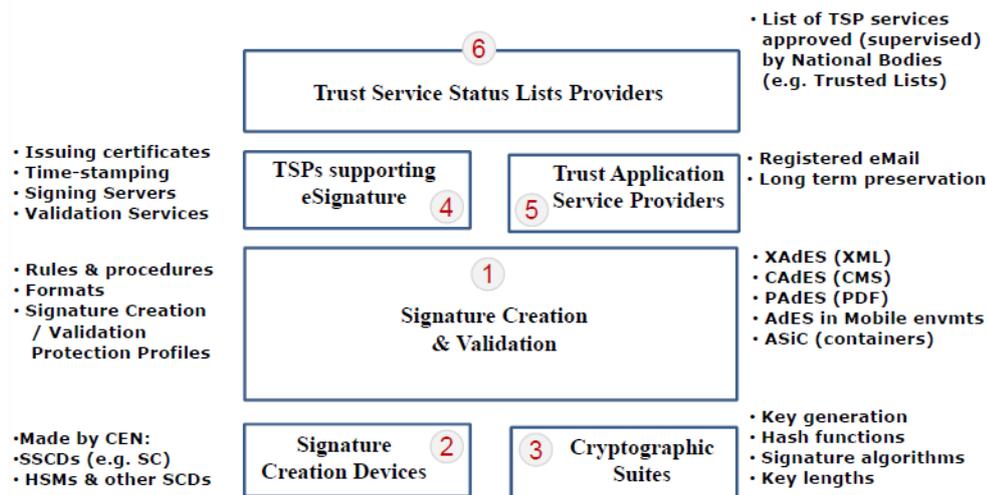
#### **(1) BDC Planning session**

- **Update of 23th UN/CEFACT Forum** (Geneva meeting, Apr '14 ) by Jasmine Jaegyong Chang
  - ◆ Animal traceability
  - ◆ eCERT electronic signature
    - SPS Certificate based message exchange with TRACES
  - ◆ RASFF(Rapid Alert System for Food and Feed)
    - Implementation progress between EC and Members states
    - Issues : core vocabularies and taxonomies(Hazards)
  - ◆ Single Window Interoperability
  - ◆ Consultation approaches
  - ◆ PPP(Public Private Partnership) in trade facilitation
  - ◆ Multimodal Trade Corridor
  - ◆ Authentication Projects in UN/CEFACT
  - ◆ e-Invoicing on EC Directive



- Procurement (Pre-Award/Post-Award)
- ◆ Transport & logistics
  - MMT(Multi Modal Transport), SeDAP(Ships e-Documents Access Project)
  -
- **Update of ETSI Standard** (EU Mandate/460, Nov '13 ) by Jasmine Jaegyong Chang
  - ◆ ETSI Electronic Signatures and Infrastructures(ESI) TC
  - ◆ New approach for legal framework ; Draft EU EIDAS-Regulation
    - 'on electronic identification and trust services for electronic transactions in their internal market
  - ◆ Standards framework I,II : M460 European Commission mandate

### 3.2 Standards Framework II Mandate/460



- **Update of "Sea Waybill"**(23th UN/CEFACT presentation by JASTPRO ) by Mitsuru Ishigaki
  - ◆ Promotion of using SWB following UNECE R12
  - ◆ 'Surrendered B/L'
  - ◆ Current situation : committees(Ocean carriers, Freight forwarders, Machinery exporters, a bank)
- (2) **Sharp main session** by Jasmine Jaegyong Chang
  - ◆ Brief introduction
  - ◆ Definitions of key concepts

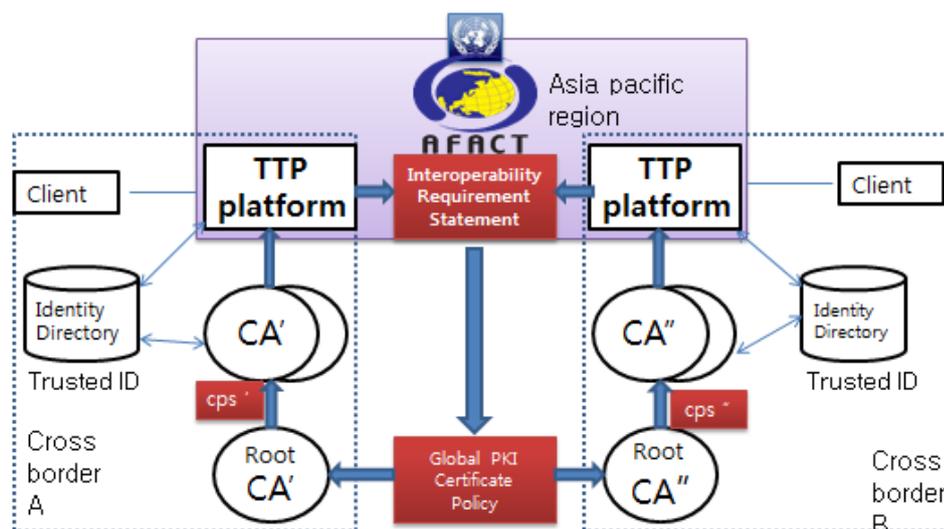


◆ Requirements

- secured and authenticated,
- accountable
- interchange platform

◆ Sharp facilitation and promotion

• SAA (Sharp AFACT Alliance)



e-identity ecosystem

23th UN/CEFACT Geneva Meeting presentation by Jasmine Jaegyong Chang

(3) Sharp OSS session by Sungpil, Kong

- ◆ E-document communication platform
- ◆ Background technology
  - Cloud service
- ◆ E-document service (pilot system)
- ◆ Q&A
  - IPR of open source



## SECTION III – BDC Survey

### 3.1 BDC Survey

#### BDC Sharp: Country Survey

1. **What experiences and/or policies** (law etc) have your country had with the development, planning, and use of **e-identity** (or digital signature)?
2. Does your country operate **the certified authority** of your country?
3. **What difficulties** do you expect about **e-identity** under the situation of your country?
4. Please briefly note **current status** (law, regulation, project, policy, platform, etc) for facilitating e-trade, e-commerce and e-government in your country?
5. What do you expect **our urgent efforts** in AFACT Sharp WG to promote and facilitate the legally and technically trusted environment in Asia region?

### 3.2 Result of BDC Survey

- Respondents : 7 member countries (Chinese Taipei, India, Iran, Japan, Rep. of Korea, Thailand, Vietnam)
- 29~30, May 2014 (Chiang Mai)
- Survey Result
  - ◆ Q1 : All member countries have legal foundation for e-identity or digital signature.
  - ◆ Q2 : Most member countries operate the certificated authority. However the level of its actualization differs from the status of each member country.
  - ◆ Q3 : Most member countries have little difficulties for using e-identity. Tax invoice service is mostly applied to most member countries. And other kinds of business services are applied it to some of member countries.
  - ◆ Q4 : Most member countries are making much efforts such as e-commerce regulation, financial investment, policy and so on for facilitating national Single Window project, cross borders projects, public service project, e-government projects and so on. These projects are increasing in number.
  - ◆ Q5 : Most member countries wanted to expand cross border's transactions. Therefore members suggested the feasibility test, further cooperation through WTO, UN/ESCAP, recommendations about the trusted environment for support Asian countries in AFACT Sharp WG.



#### **SECTION IV – Conclusion**

In BDC, we had the productive and valuable time of introduction and discussions about trusted and paperless communication, legal evidence, e-identity and its mutual recognition of PKI, open source and so on.

Most member countries have established domestic e-platform such as tax invoice system however they have the needs for expanding global platform like single windows or other area. Therefore at Asia and Pacific region, it is important to share the best practice and reduce the obstacles of interoperability. In BDC Sharp WG, if we can reveal what its trusted environment is at this moment of us, it would be very beneficial to facilitate future Asia and Pacific economy community.

In next BDC, it should be discussed the trusted platform with single window, eCOO and its traceability and arise up the BDC new working items.



## **Working Group Progress Report**

**Travel, Tourism and Leisure (TT&L) Working Group**

**32rd AFACT Plenary  
Bangkok, Thailand  
November 25-27, 2014**



## **Section I – Introduction**

In the Asia Pacific region, the travel, tourism and leisure working area is rapidly growing. This region has so diversified travel related resources that it is expected to distribute information on them as widely as possible and exchange information for commerce, study, publication, or any other purposes not only within the region but also with the world by using currently established world information exchange standards and when needed by cooperatively developing new such standards with UN/CEFACT Forum, etc. Travel, Tourism and Leisure (TT&L) working group has, therefore, been established under Business Domain Committee (BDC).

## **Section II – Objectives**

The objectives of the TT&L working group are:

- (1) To study whether current information exchange standards could be applied or not.
- (2) If not, to study the way to develop new such standards or amend the current ones.
- (3) When needed, to propose UN/CEFACT Forum et al to develop appropriate standards.
- (4) To find business customs or procedures to cope with the other counties/economic region within the Asia Pacific region.

## **Section III – Progress on Projects under TT&L working group**

### **1) Small-scaled Lodging House (SLH) Information Project**

The SLH International Pilot Project has been conducted within the region to survey the applicability of SLH standards developed by UN/CEFACT Forum and to get additional input from the region to UN/CEFACT, if needed, for better e-trade of SLH products or relevant information. The relevant ~~the~~ software programs for SLH Pilot Project: facility information and product data entry, reservation and management, etc. have been developed based on UN/CEFACT specifications. 5 countries: Iran, Korea, Thailand, Chinese Taipei and Japan, are participating in the pilot project, each of which provides or will do with 3 SLH properties. Currently 3 SLH properties from Japan and 2 from Iran are shown in the sites.

The TT&L WG members are encouraged to input more facility and product information and input test data for test enhancement.

The system and procedure for translation of the SLH reservation and property management (SLHS and SLHP) sites into local language have been created. The instructions have also been distributed among the participating members. Consequently, the sites will be created in member's own language and thus can be viewed by the member's people. The parts of SLHS and SLHP sites are currently successfully translated into Japanese and Thai.

### **2) Destination Travel Information (DTI) Project**



DTI project has been developing UN/CEFACT standard of DTI in UN/CEFACT Forum by the leadership of Korea and TT&L WG has been supporting the activity by adding comments on it. This will be well applied with SLH standard in the future. The drafted DTI business requirements specification (BRS) has been studied by the group. It will be submitted to UN/CEFACT to be disclosed in the public review. The drafting DTI requirements specification mapping (RSM) will be studied in the group in the future.

#### **Section IV – Future plan**

In the AFACT2014 midterm meeting, members from Institute for Information Industry (III), Chinese Taipei, presented their smart tourism project using cloud computing technology and AppCross software.

III presented their endeavor in the joint session with TMC and CSC. They will be cooperatively working with TT&L WG in the coming years, because they have a close working relationship with the DTI and SLH project.

AppCross is software platform invented by III of Chinese Taipei. It provides platform for creating interactive content and publications for mobile devices. It has been widely adopted by Taiwanese content providers and gradually by some travel related businesses like an interactive travel guide magazine, etc. Therefore, TT&L WG will further discuss on AppCross for its further applicability to the DTI and SLH projects in the future.



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## Meeting History

No.	Year	Date	Place	Remark
1 <sup>st</sup>	1990	Nov. 5~6	Tokyo, Japan	JS/EB Plenary
2 <sup>nd</sup>	1991	Jun. 25~26	Singapore	JKS/EB Plenary & EDICOM '91
3 <sup>rd</sup>	1991	Oct. 28~29	Tokyo, Japan	AS/EB Plenary
4 <sup>th</sup>	1992	Jun. 11~12	Tokyo, Japan	AS/EB Plenary & EDICOM '92
5 <sup>th</sup>	1992	Oct. 29~30	Seoul, Korea	AS/EB Plenary
6 <sup>th</sup>	1993	May. 20~21	Beijing, China	AS/EB Plenary
7 <sup>th</sup>	1993	Oct. 25~27	Seoul, Korea	AS/EB Plenary & EDICOM '93
8 <sup>th</sup>	1994	Jun. 6~8	Kuala Lumpur, Malaysia	AS/EB Plenary
9 <sup>th</sup>	1994	Nov. 28~30	Chinese Taipei	AS/EB Plenary & EDICOM '94
10 <sup>th</sup>	1995	Jun. 5~7	Bangkok, Thailand	AS/EB Plenary
11 <sup>th</sup>	1995	Nov. 1~3	Kuala Lumpur, Malaysia	AS/EB Plenary & EDICOM '95
12 <sup>th</sup>	1996	Jun. 4~7	Manila, Philippines	AS/EB Plenary
13 <sup>th</sup>	1996	Oct. 28~30	New Delhi, India	AS/EB Plenary & EDICOM '96
14 <sup>th</sup>	1997	Apr. 30~May. 2	Singapore	AS/EB Plenary & EDICOM '97
15 <sup>th</sup>	1997	Nov. 2~6	Colombo, Sri Lanka	AS/EB Plenary
16 <sup>th</sup>	1998	Jul. 4~10	Tehran, Iran	AS/EB Plenary
Management Team Meeting	1999	Apr. 22~23	Singapore	
17 <sup>th</sup>	1999	Sep. 5~10	Seoul, Korea	AS/EB→AFACT Plenary & EDICOM '99



No.	Year	Date	Place	Remark
18 <sup>th</sup>	2000	Sep. 11~15	Chinese Taipei	AFACT Plenary & EDICOM '00
19 <sup>th</sup>	2001	Oct. 1~3	Jakarta, Indonesia	AFACT Plenary & EDICOM '01
20 <sup>th</sup>	2002	Oct. 28~Nov. 1	Kuala Lumpur, Malaysia	AFACT Plenary & EDICOM '02
21 <sup>st</sup>	2004	Jan. 11~14	Karachi, Pakistan	AFACT Plenary & EDICOM '03
22 <sup>nd</sup>	2004	Sep. 19~22	Singapore	AFACT Plenary & EDICOM '04
23 <sup>rd</sup>	2005	Oct. 24~27	Hanoi, Viet Nam	AFACT Plenary & EDICOM '05
24 <sup>th</sup>	2006	Aug. 7~11	Karachi, Pakistan	AFACT Plenary & EDICOM '06
25 <sup>th</sup>	2007	Aug. 6~10	Bangkok, Thailand	AFACT Plenary & EDICOM '07
26 <sup>th</sup>	2008	Oct. 13~16	Seoul, Korea	AFACT Plenary & EDICOM '08
27 <sup>th</sup>	2009	Nov. 2~6	New Delhi, India	AFACT Plenary & EDICOM '09
28 <sup>th</sup>	2010	Nov. 24~26	Yokohama, Japan	AFACT Plenary & EDICOM '10
29 <sup>th</sup>	2011	Oct. 31~ Nov 4	Taipei, Chinese Taipei	AFACT Plenary & EDICOM '11
30 <sup>th</sup>	2012	Nov.19~Nov.22	Tehran, Iran	AFACT Plenary & EDICOM '12
31 <sup>st</sup>	2013	Nov.27~Nov.29	Ho Chi Minh, Vietnam	AFACT Plenary & EDICOM '13
32 <sup>nd</sup>	2014	Nov.24~Nov.27	Bangkok, Thailand	AFACT Plenary & EDICOM '14



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