



International Telecommunication Union (ITU)

WTO Seminar on Government Facilitation of E-commerce

Addressing the Technology Challenges through Partnership
The ITU-WISeKey Strategy for Global E-Transaction Infrastructure

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Agenda

Technologies for E-transactions

The Role of ITU in Global PKI Deployment

Status of Activities, Solutions and Services

Role of Governments in E-Commerce



The Technology Challenge

**Identification is
the Challenge**



***“On the Internet, nobody
knows you’re a dog...”***

***...but in e-transactions, it is important to
Know if you are dealing with a dog...***



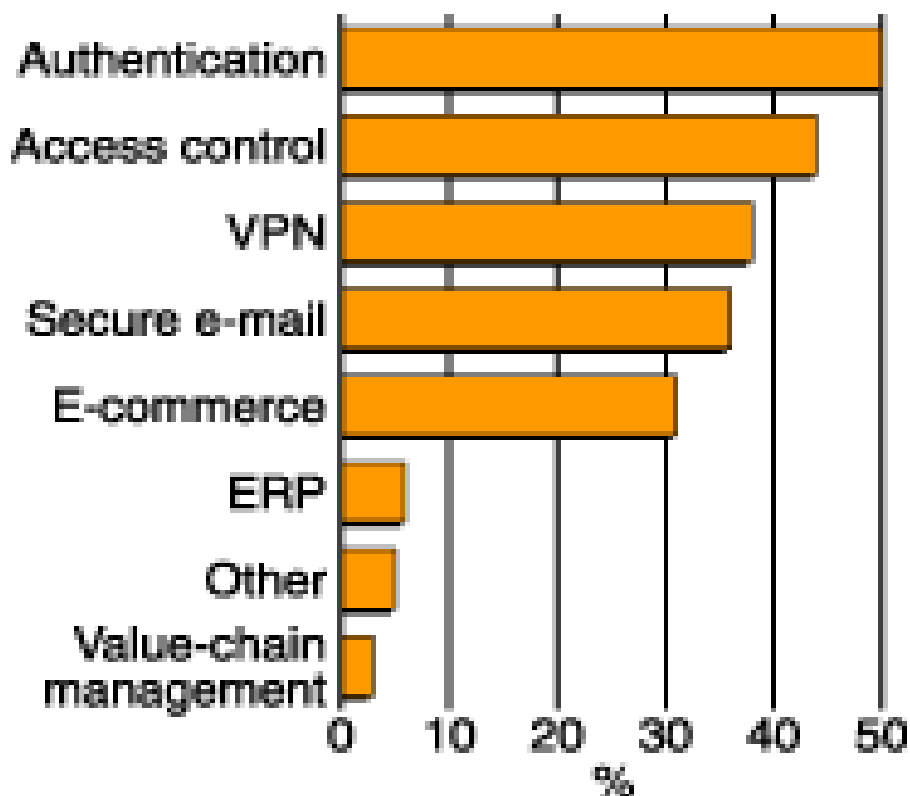
Public Key Infrastructure (PKIX)

The set of hardware, software, people and procedures needed to create, manage, store, distribute and revoke certificates based on public-key cryptography.

- Public-Key Virtual Private Networks
- ITU-T X.509 Digital (Identity) Certificates
- Strong Software and Hardware Authentication
- Certification and Registration Authorities
- Attribute Certificates linked to Identity Certificates
- Online Certificate Validation (OCSP, SCVP, CLR)



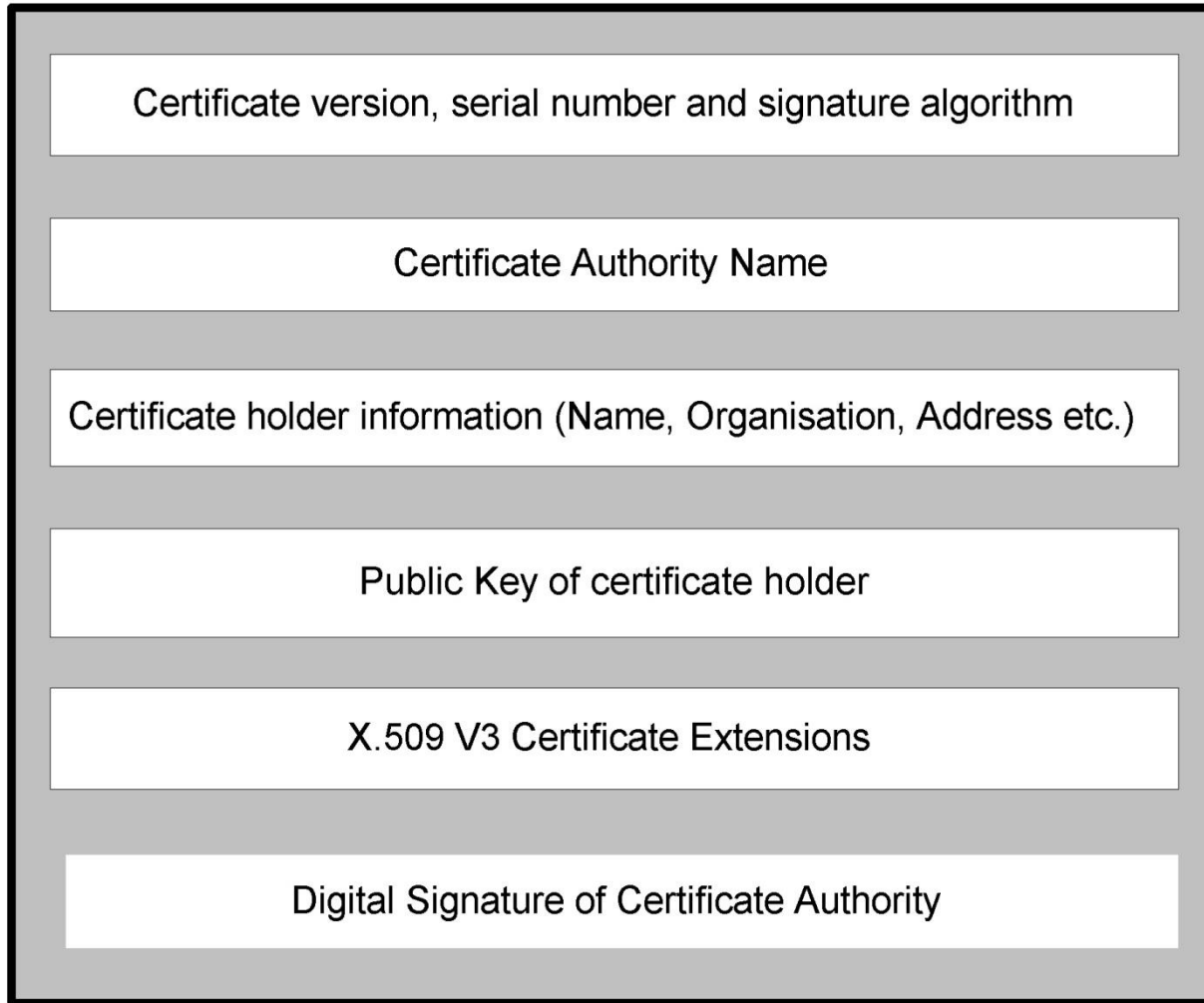
In what areas are you using or do you plan to use PKI?





Certification – The Framework for Global Trust

Simple Diagram of ITU-T X.509 Certificate Version 3



Establishing the identities of entities in electronic transactions...

... ITU-T X.509 enables authentication for e-business e-government e-learning and e-procurement etc...



The Role of ITU and Partners

...as a result of the ITU-WISeKey Partnership Agreement, EC-DC has expanded from e-commerce to the deployment of global e-transaction infrastructure in 100 developing countries using PKI...

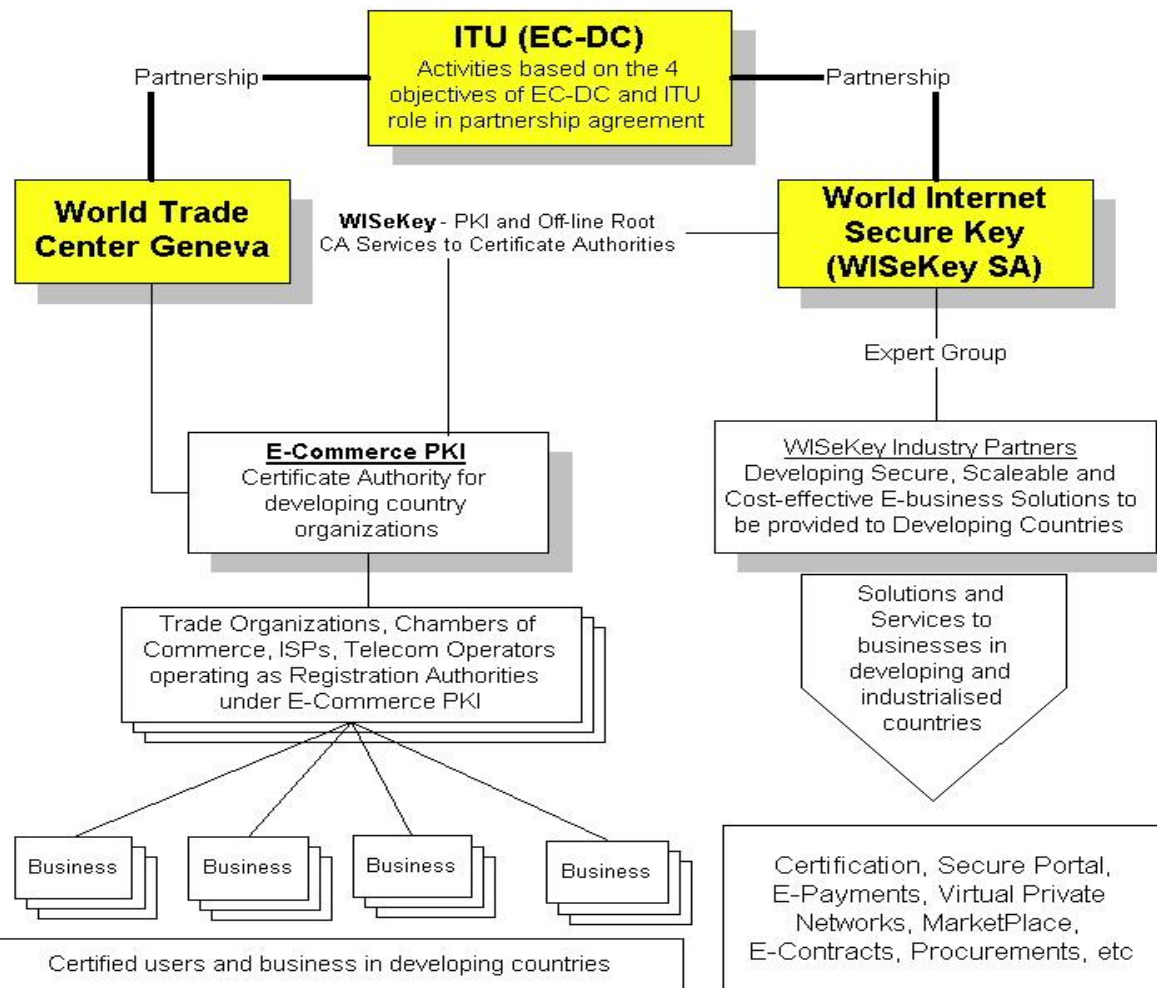
Objectives of EC-DC:

1. Assist in Building the E-transaction Infrastructure
2. Build Local Capacity in E-transaction Technologies
3. Address E-transaction Policy and Regulatory Issues
4. Neutral and Non-Exclusive Alliances with Industry



The Partnership - Structural Relationship

The ITU-WTC-WISeKey Partnership for EC-DC



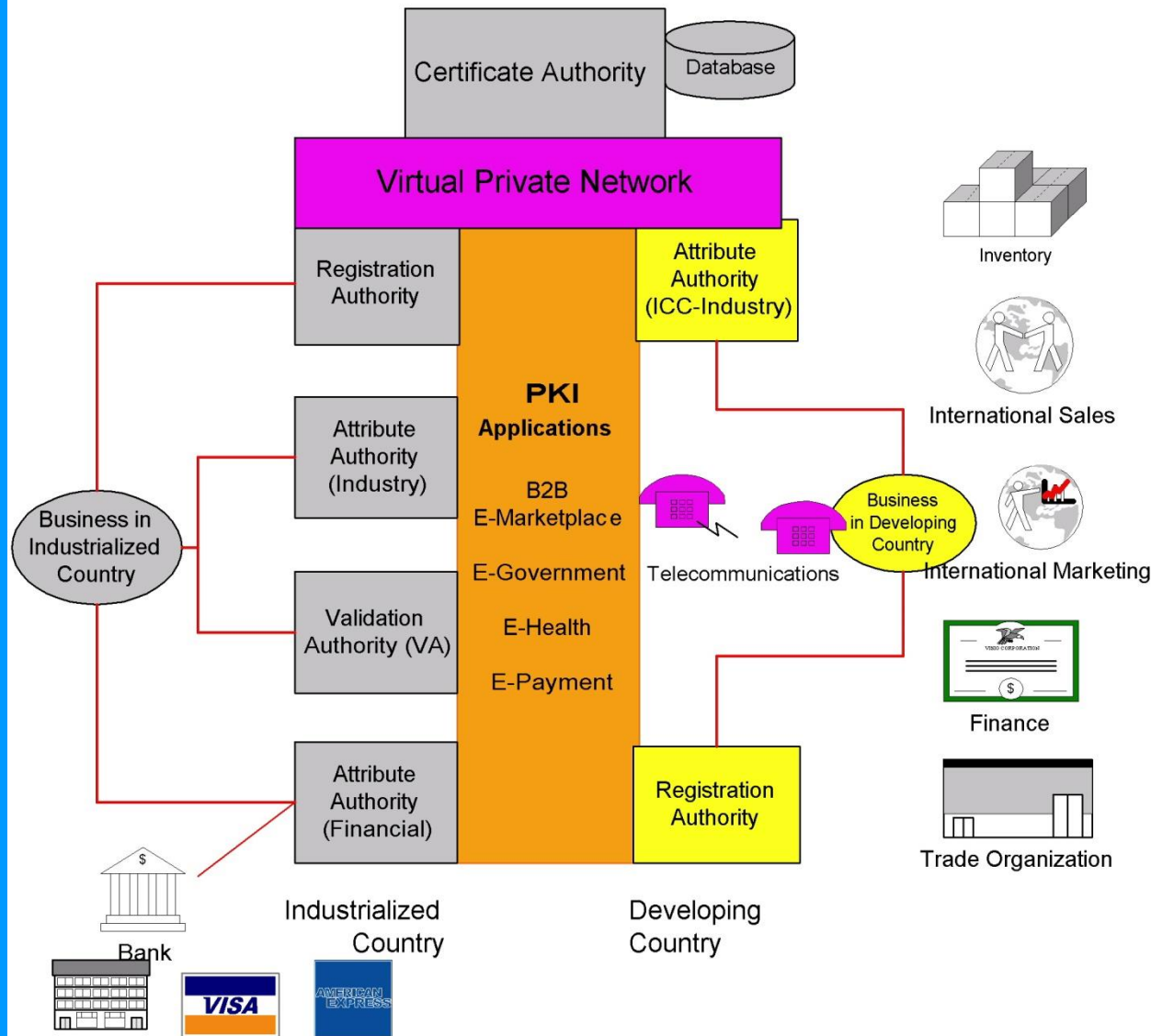
Objectives:

1. Deploying integrated, highly secure, scalable and cost-effective e-business solutions.
2. Generating revenues from the sale of certification services for EC-DC Trust Fund.



The Asymmetrical Model

Components of PKI showing asymmetrical model





The Status

- Launched in March 1998, at the ITU WTDC in Valletta, Malta and has expanded from e-commerce to global deployment of e-transactions infrastructure.
- Cited in **Time Magazine (July 2000)** and many national and international media as an activity to watch out for.
- **Largest e-transaction infrastructure** project (110 countries) - *International Security Review (April 2001)*.
- Partnership Agreements signed with the World Trade Centre (WTC), **WISeKey** and FUNDANDINA.
- Support of several leading ICT companies with **more than \$5 million** already contributed.
- Other Projects and activities in Africa, Asia, Europe, Latin America and the Arab Region.
- Conference for 120 countries (**27-29 Nov 2000**) at the ITU HQ in Geneva (**WISEWORLD 2000**).



ITU-WISeKey Partnership Conference



More than **500** participants from **128** countries and internet security experts met at ITU HQ in Geneva for 3 days to launch the World Internet Secure Infrastructure for developing countries.

Launching of one of the largest deployment of secure electronic transaction infrastructure for 100+ developing countries from all regions.

An African delegate watching live PKI demo at the ITU-WISeKey Secure Electronic Commerce Partnership Conference at the ITU HQ in Nov 2000



ITU-WISeKey PKI Solutions/Services

Multi-Platform (Fixed, Mobile and DVB)

Component-Based Cost-Effective Architecture

Verifiable Chain of Trust (Global E-trust)

E-Transaction Services for Various Sectors

Global Deployment – More than 100 DCs



ITU-WISeKey PKI Solutions/Services

Certification Authority for DCs and LDCs

Secure B2B Electronic Market Place

Deployment of Trust Infrastructure in DCs

Generic Infrastructure for E-transactions

Technology Neutral Registration Authority

National, Regional & International Training




ITU-WISeKey Solutions - Secure B2B e-marketplace – Strong End-User Authentication using PSE (Tokens)

Sgcp Portal - Microsoft Internet Explorer

File Edit View Favorites Tools Help


Back Forward Stop Home Search Favorites History Print Copy Paste

Address <https://212.23.250.9:9000/> Go Links >>



Trust @ Portal
Bringing Security to Internet Trade
Home | Contact Us

Welcome to
Trust @ Portal



User Login

Certified Member

If you are a Digital Certificate holder, and wish to access the complete functionality of the portal [click here](#)

Member Login

User Name

Password

Submit Reset

Sign-Up

If you are not already a member, you can **register right now**.
Choose the correct category below and follow the instructions to register online.

[Buyer](#) | [Supplier](#)

Done

Start | Ne... | Mi... | To... | Sg... | De... | Ve... | 100% | Internet | 15:15



Solutions Secure E-Transactions

Demo - Outlook Express

File Edit View Tools Message Help

New Mail Reply Reply All Forward Print Delete Send/Recv Addresses Find

Demo

Folders

- Outlook Express
- Local Folders
 - Inbox (1436)
 - Outbox
 - Sent Items
 - Deleted Items (673)
 - Drafts
 - Demo

Contacts

- Alexander Ntoko
- ecdc@itu.int
- Eric Burrus
- eriko nakaza
- evoram
- Faccin, Patricia
- Geneux, Aude
- Ochienghs, Christine
- SaSpe@aol.com
- TIES WISEkey Demo
- Yusef. Ffrem

| From | Subject | Received |
|----------------------------|--|------------------------|
| Eric Burrus | Very important message | 26.03.2001 11:11 |
| anton_muechler@virgilio.it | Learn Web Design at Home! Great Job Too! | 29175 26.03.2001 01:45 |
| Total Telecom | Enel to cut Vodafone Infostrada price | 17.03.2001 10:20 |

Cryptographic Service Provider

Alexander Ntoko

Enter User Pass Phrase:

XXXXXXXXXX

OK Cancel

From: To:
Subject:

Error Decrypting Message

You cannot read the message.

This might be because:

- You may have lost or deleted the Digital ID that the message is encrypted to.
- You may have installed the Digital ID that the message is encrypted to on another computer.
- The sender may have meant the message for somebody else.
- You do not have the necessary security package installed on this computer.

3 message(s), 0 unread

Working Online Checking mail...

Start Net... Micr... Take... Sgpec... Dem... 99% 15:08



Role of Governments in E-Commerce

- Establish** Strong Regulatory Framework to encourage competition, better services and wider availability of ICTs.
- Encourage** the development of IP networks (such as the Internet) by facilitating the creation of Service Providers (ISP, NSP, ASP, CSP, MSP, and IAPs).
- Establish** Legislative Framework for digital transactions, recognition of electronic signatures and guidelines for the operation of certification authorities.



Role of Governments in E-Commerce

- Consider** ICT development as a national priority and introduce e-transactions services (such as e-government and e-procurements).
- Create** national E-commerce Task force including all major stakeholders (governments, industry, businesses and the educational sector).
- Encourage** Alliances and Strategic Partnerships between public and private sector entities.



Thank You.

For more information,

<http://www.itu.int/ecdc>