# International training seminar 'CONFORMANCE TESTING'

'International Telecommunication Testing Centre'
(ITTC)
Moscow, Russia, 10-11 December 2009

# WTSA-08 Resolution 76: Conformance and Interoperability testing

Paolo Rosa Head, Workshops and Promotion Division Telecommunication Standardization Bureau



# Conformity

Ability of a product to meet the requirement(s) of a standard. A first step to increase the probability of interoperability

# Interoperability

Ability of two or more systems or applications or network management products and services from different suppliers to exchange information and to mutually / fruitfully make use of it



# Some Problems

1) How many Bluetooth™ earpieces are you ready to buy before you find the good one for your mobile?

2) your service provider changes its equipment, are you happy to throw out of the window the last "super-wireless-ADSL2+" modem you were so proud to have at home?









# What happens everyday

- Lack of performance and of compliance to requirements
- Market invaded by counterfeit products
- Legacy, regulatory and legal issues
- Developing Countries spending money for ...?????



## The content

- Need of Conformance and more Interoperability in the marketplace
- Combat poor quality of equipment and services
- Need of training opportunities and testing resources
- What the ITU-T/TSB does: the Conformity Database just as a beginning...





## WTSA-08 Resolution 76

"Studies related to conformance and interoperability testing, assistance to developing countries, and a possible future ITU mark programme"



## TSB studies with...

- Experts and External Organizations
- IEC, ISO,
- TIA, ANSI,
- ETSI,
- Regulators,
- Laboratories,
- Training institutions
- Governments
- UN Agencies
- Acreditation bodies (ILAC, IAF, BIPM)
- Geneva Consultation Meeting July 2009





# Council-09 Recommendations a possible solution

- TSB to establish two databases as a repository for companies' information on Conformity and on Interoperability.
- TSB to encourage interoperability even
- TSB collaborate with BDT to assist Developing Countries on capacity building and test centres
- TSB in collaboration BDT to develop a business plan for the long-term implementation



# **ITU-CIP Programme Benefits**

Industry: increased business opportunities

(time to market, reduced costs, widen market for Mutual Recognition Agreements, no TBT issues)

▶ End users: increased QoS & interoperate legacy to existing infrastructure, savings

 Developing countries: capacity building opportunities, regional and sub-regional type testing laboratories, bridging standardization Gap and digital divide, promotion of a conformity testing culture)



# ITU Conformity Database fundamental concepts

Voluntary basis & free programme

■ 1st, (2<sup>nd)</sup>, 3<sup>rd</sup> party conformity assessment

Supplier's Declaration of Conformity (SDoC) (ISO/IEC 17050) based on 3<sup>rd</sup> party labs or Certification Body

# **Conformity Database Benefits**

- The vendor: visibility in the marketplace
- The ITU-T Study Groups:

  develop the necessary Recommendations for conformity and interoperability testing and increase quality of standards

Customers: easy finding of conform products



# The keys to the world market:

Certification/Declaration of Conformity

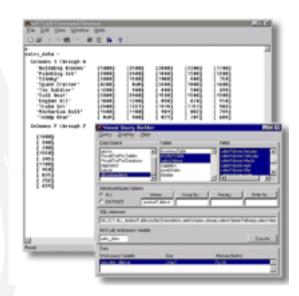
Interoperability Events

Mutual recognition agreements.
labs and certifiers to demonstrate equivalent competence to carry out the same conformity assessment tasks (ILAC,IAF, BIPM)



## The Public Database

- Company
- ITU product code ITU C/I-1234567
- Product name
- Products Categories
- ITU-T Recommendations
- SDoC / Certification data
- Others...





#### International Telecommunication Union Telecommunication Standardization Bureau

(CDB-REQ Rev.1)

#### To the ITU/TSB Director

#### Subject: ITU-T Conformity Database Participation Request

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Select a Countr	у	<u> </u>	
SDoC	Ref. N.:	of	
DoC	Ref. N.:	of	
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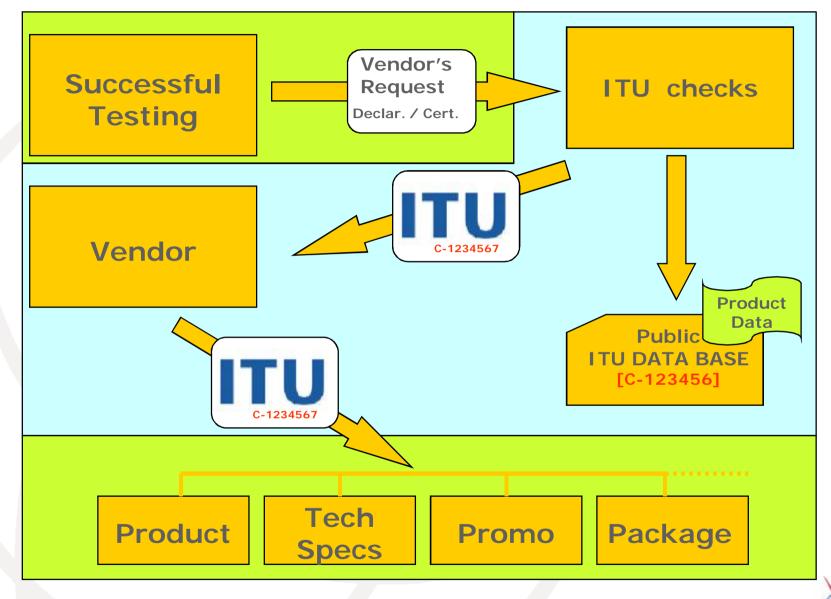


International Telecommunication Union				
Conformance Database				
Search	here			
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	1011111111111111			
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Company Name	Product Name	ITU Code	Category	Recommendation	
Apple	iPod Classic	C/I00000000001	Mobile phone	ITU-T H.264 [2009-03]	
SAGEM	SAGEM F@st™ 1201 V2	C/I00000000013	Bridge/Router	[TU-T G.992.5 [2009-01]	
<u>SAGEM</u>	SAGEM F@st™ 3464	C/I0000000014	Bridge/Router	[TU-T G.992.5 [2009-01]	
DVICO	TVIX HD M6500	C/I0000000C011	Multimedia player	ITU-T H.264 (2009-03)	
DVICO	TVIX HD M6600	C/100000000010	Multimedia player	ITU-T H.264 (2009-03)	
DVICO	TVIX HD M7000	C/100000000012	Multimedia player	ITU-T H.264 (2009-03)	



# The ITU Conformity Programme



#### **ITU-T Recs &** test suites 1st 2nd or 3rd party Conformity Test lab accredited lab (certification body (ISO/IEC 17025) responsibility) Supplier's conformity route Test results decision Test results (ITU-T X.290) Interoperability Assessment (ITU-T X.290) Accredited (ISO/IEC Guide 65) 1st party Certification body Evaluation **Evaluation** Certification Conformity Supplier's Conformity Certificate issued by Non-conformity Declaration Certifier procedure (ISO/IEC 17050) Yes Yes J Supplier's **Request to ITU** CIP services **ITU** database

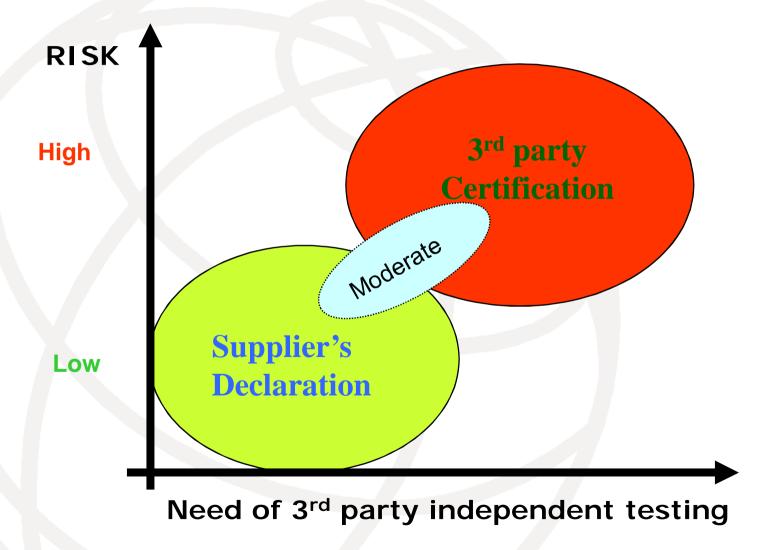
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Seminar 'CONFORMANCE TESTING'- Moscow, Russia, 10-11 December 2009

# Supplier's Declaration / Certification - Risk relationship





## **Draft Action Plan**

- Launch the Conformity Database in December-09
- MoUs with partners: UNIDO, World Bank, ILAC, IAF, BIPM, SDOs (OMA, ETSI, WiMax, MPEG F....)
- Standardization and Development sectors cooperation
- Plan the 1st ITU Interoperability event (asap)
- Preparation of a Business Plan (y201x)



# What we said

- Resolution 76: the reply to the needs of Developing Countries
- Conformity to increase probability of interoperability
- "green light" from the Council-09 to start the ITU-T programme
- Voluntary based and free participation ITU-T Conformity database for all



## Conclusion

There is no point in developing test suites if ITU does not give some recognition to manufactures having their equipment tested to ITU-T Recommendations





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# Additional Slides



# Why the Res. 76

- Addressing interoperability is one of the very reasons for founding ITU
- Major concerns were raised at WTSA-08, especially in developing countries;
  - lack of conformance and/or interoperability of telecommunications equipment being placed on the market.
  - supply of poor quality equipment and services (=> QoS)
  - counterfeit equipment
  - lack of legal framework and effective systems to ensure that appropriate technical regulations, based on international standards, are in place and enforced in order to meet the obligations to protect the safety of citizens using telecommunication equipment and services and to meet their requirements for quality of service
- Need of developing countries to be assisted in deploying testing facilities and building capacity facilities in the regions
- Other standards bodies have already introduced a number of activities to address conformity and interoperability and are far ahead of ITU.



### Res. 76: instructs the Director of TSB

- in cooperation with BR and BDT, to identify and prioritize the problems faced by developing countries related to achieving interoperability of ICT equipment and services
- to study the overall effect on ITU and manufacturers, legal, national and international regulatory implications, cost of set up and location of testing facilities, measures to build the necessary human resource capacities
- to carry out the necessary studies, also involving experts and external entities, with the view to introduce the use of ITU Mark as a voluntary programme permitting manufacturers and service providers to make a visible declaration that their equipment conforms to ITU-T Recommendations and to study the relevant financial and legal implications for the ITU-T and ICT industries
- to submit the result of these studies to Council-09 for its consideration and required actions



# The ITU Conformity and Interoperability Programme (ITU-CIP): capacity building and test centers

- The ITU-T Secretariat (TSB) will implement proposals on human capacity building in close collaboration with the BDT:
  - assign more resources
  - hold workshops and tutorials on conformity assessment and interoperability building on the BDT project on International Telecommunication Testing Center.
- The ITU-T will assist in the establishment of test facilities in developing countries and in cooperation with international institutions is planned (UNIDO, ILAC, IAF,...)



# ITU Consultation on Conformance Assessment and Interoperability Testing Geneva, 20-21 July 2009

- A The concept of the ITU conformity programme
- B Interoperability problems
- C International legal issues
- D Mutual recognition agreements
- E GMPCS
- **■** F Lessons from other marks
- G Bibliography
- H Definitions
- I List of laboratories
- J List of ITU-T Recommendations
- M Report on the Consultation on conformance assessment and interoperability testing
- R.K. Siddhartha: Essentiality of ITU Mark
- Relevant template for contributions
- Arab proposal
- Julio Cesar Fonseca: Technical Regulations Manager: The certification and approval regulation from ANATEL Brazil
- Regulation for telecom product certification and approval, ANATEL -Brazil
- Maria de Fátima N.C. Rosolem: CPqD and Julio Cesar Fonseca: Brazilian Structuring in Accreditation for Telecommunications Products ITU Mark (Res. 76) ANATEL Brazil



## Standards for Accreditation

