
**ITU-D Regional Development Forum
for the Arab Region:
“NGN and Broadband, Opportunities and Challenges”**

**Conformity & Interoperability (C&I) :
WTSA 08 – Res 76 and PP-10**

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Outline

1. Challenges for developing countries
2. Strategic Direction
3. Conformity
4. Interoperability
5. Assistance to developing countries
6. Conclusions



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Challenges for Developing Countries

Background

- Major concerns were raised at WTSA-08, especially by developing countries;
 - lack of conformance
 - poor quality, legacy
 - counterfeit equipment
 - lack of legal, contractual and regulatory framework
- Lack of interoperability
- Assistance in deploying testing facilities and capacity building
- Other standards bodies have already introduced a number of activities to address conformity and interoperability.

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Strategic Direction

Effects of lack C&I

Impact on ITU:

- Erosion of the perceived importance of ITU as the place of choice to develop the full range of interoperable standards.

Reactions from Developing Countries

- a plea expressed for ITU to help and to assist in achieving the requested level of conformity to standards and interoperability among vendors.



ITU commitment

- **WTSA-08 Resolution 76:** ITU-T not proposing to do anything that is not already being done by other successful SDOs
- **WTDC-10 Resolution 47 :** supporting and complementing the Res.76 from the development sector point of view
- **PP-10 Resolution** on Conformity and Interoperability

Strategic Direction

- WTSA-08 Res. 76 on conformance & interop
- ... supported & complemented by WTDC-10 Res. 47 (ITU-D)
- PP-10 mandated
 - a pilot conformity assessment database
 - Interoperability events
 - Human resources capacity building
 - Assistance in the establishment of test facilities in developing countries

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Conformity

Ability of a product to meet the requirement(s) of a standard

A first step to increase the probability of interoperability

ITU Conformity Database (DB)

- The DB is online and open both to members and non-members of ITU
- <http://www.itu.int/net/ITU-T/cdb/cdb.aspx>
- Supplier's Declaration of Conformity (SDoC) done online
- Companies take full responsibility of SDoC contents submitted.



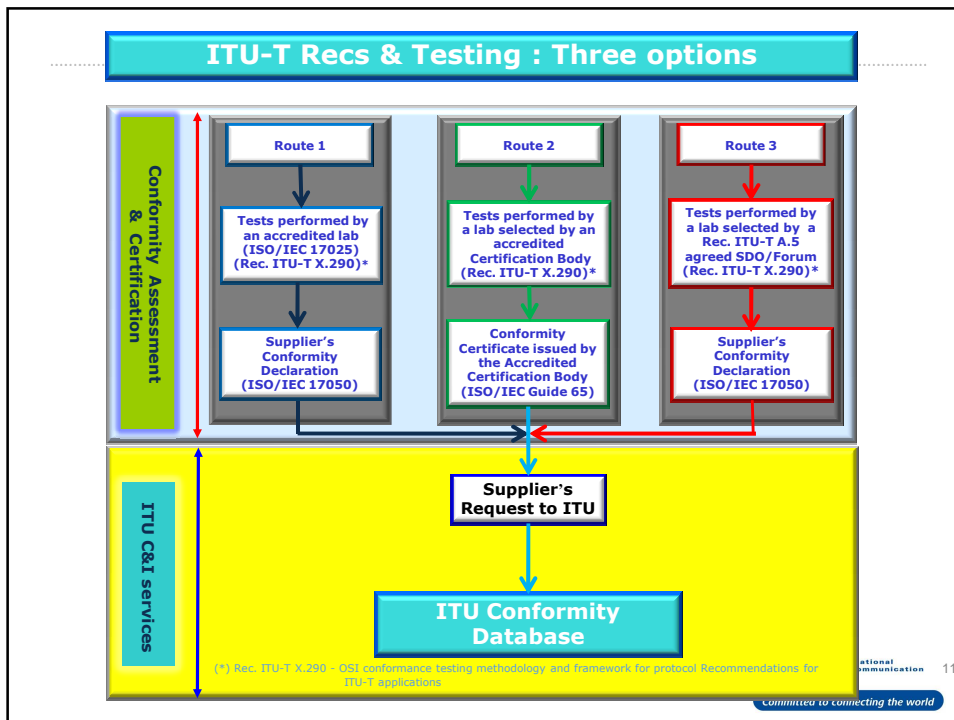
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Conformity Assessment

- **Route 1:** testing performed by a 1st, 2nd or 3rd party accredited laboratory,
- **Route 2:** testing performed according to the requirements of a certification body, which issues a certificate of conformity.
- **Route 3:** Testing performed by a lab selected by a SDO or Forum as per Recommendation ITU-T A.5.



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Supplier's Declaration of Conformity – SDoC 1/2

Please complete the information requested in each field below. One may advance by tabbing from field to field. Once completed, click on the button below to **download for signature, SIGN and SCAN** completed form and send by E-Mail to: tsbconformity@itu.int

Company

Name of Signatory: Title:

Full Company Name:

Street/PO Box: Town/City:

Post/ZIP Code: Country:

Telephone: Company E-Mail:

Website:

PRODUCT


Name of product:

Enter a Category:
(e.g. DSLAM, modem, ADSL, optical fibre, home networking, WDM, multimedia, IPTV etc.)


Comments/Remarks:
(e.g. ITU-T Recommendation Edition, main functionalities implemented, etc.)

International Telecommunication Union 12
Committed to connecting the world

ITU-T RECOMMENDATION(S) IMPLEMENTED IN THE PRODUCT	
Please select from the list below ITU-T Recommendations that are implemented in your product.	
F.162	Select
SDOs (ACCEPTED UNDER ITU-T A.5) WHOSE STANDARDS ARE IMPLEMENTED IN THE PRODUCT	
ABNT (Associacao Brasil)	Select
DECLARATION OF CONFORMITY	
By signing this SDoC I declare that all statements are true and that I have the authority to make such statements on behalf of this company.	
The present Supplier's Declaration of Conformity is issued on the basis of:	
<input type="checkbox"/> Test results conducted in Accredited Laboratory	Name: <input style="width: 150px;" type="text"/>
<input type="checkbox"/> Certificate of Conformity issued by Accredited Certification Body	Name: <input style="width: 150px;" type="text"/>
<input type="checkbox"/> Tests performed in a lab recognized by: (A.5 – SDO/Forum)	Name: <input style="width: 150px;" type="text"/>


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COMPANY			
Full Company Name:	International Telecommunication Union		
Street/PO Box:	12345	Town/City:	Geneva
Post/Zip Code:	01211	Country:	Switzerland (Confederation of) - CHE
Telephone:	1243546789	Company Email:	pr@itu.int
Website:	www.itu.int		
PRODUCT			
Name of Product:	Optofiber		
Category:	Fiber3WDS		
Comments/Remarks:	Supersede Rec ITU-T G.653 (2003-12) implemented		
ITU-T RECOMMENDATION(S) IMPLEMENTED IN THE PRODUCT			
G.653			
OTHER STANDARDS IMPLEMENTED IN THE PRODUCT (ACCEPTED UNDER ITU-T A.5)			
OIF (Optical Internetworking Forum)			
DECLARATION OF CONFORMITY			
The present Supplier's Declaration of Conformity is issued on the basis of:			
<input checked="" type="checkbox"/>	Test results conducted in Accredited Laboratory	Name:	<input style="width: 150px;" type="text"/>
<input type="checkbox"/>	Certificate of Conformity issued by Accredited Certification Body	Name:	<input style="width: 150px;" type="text"/>
SIGNATURE			
The Company authorizes ITU to include the information contained herein in its ITU-T Conformity Database. The Company agrees that it is fully and solely responsible for the accuracy and validity of the information provided and that ITU shall not be held liable or bear any responsibility with regard to the use of the ITU-T Conformity Database. ITU reserves the right to remove any entry in the ITU-T Conformity Database. The Company recognizes the right of ITU to request at any stage information about documentation supporting this declaration.			
By signing this SDoC I declare that all statements are true and that I have the authority to make such statements on behalf of this company.			
Name:	Paolo Rosa - TEST	Title:	Head of Division
Signature:	<input style="width: 100px;" type="text"/>	Place and Date:	<input style="width: 100px;" type="text"/>
		Country:	Switzerland (Confederation of) - CHE
Contact person if different from above:			
Name:	<input style="width: 150px;" type="text"/>	Telephone:	<input style="width: 150px;" type="text"/>
Position:	<input style="width: 150px;" type="text"/>		


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The ITU Conformity Database: Example

Company	ITU code	Prod. Name	Product category	ITU-T Recs/Ed.	SDOs standards	Date	SDoC
Vendor A	C-12345	AH-1234	VDSL 2	G.992.2, G.995, GPON	IEEE, IETF, OIF	01.01.11	".pdf"
Vendor B							
Vendor C							

Multiple search facilities



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Interoperability

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



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ITU-T Interop Event on IPTV

- Study Groups developed a consistent set of technical specifications or standards under the umbrella of the IPTV Global Standards Initiative (IPTV-GSI).
- Demonstrate the state of maturity and industry adoption of ITU-T standards for IPTV, for example: H.701,H.721,H.740, H.750, H.761,H.762,H.770. Manufacturers of set top boxes, content servers and other equipment are invited to showcase their products and test for interoperability.
- Three Interop Events on IPTV in 2010 – Geneva in July, Singapore in September and India in December
- Geneva event, 20-23 July 2010 :
 - satisfaction rating of the participants was 4.5 on a 1-5 scale
 - Participants: NTT, NEC, Mitsubishi, Sumitomo, OKI, Cisco+TVstorm, PUC-Rio (Brazilian university).



ITU's 1st Interop Event

- Putting to the test:
ITU-T's IPTV suite of standards: H.721 et al.
- Geneva, 20-23 July: testing, followed by showcasing
- Participating companies highly satisfied: 4.5 rating (out of 5)
- Event highlight on YouTube, ITU website:
http://youtube.com/watch?v=CpJmI_5aQrA
- Photos on Flickr: <http://flickr.com/photos/itupictures>



ITU's 1st Interop Event

- 1st part (20-21 July): Testing – closed event
 - Two types of testing carried out
 - Conformance testing: each company tests against a checklist
 - Interop testing: one-on-one testing
 - Testing was carried out with IPv4/IPv6 dual-stack environment
- 2nd part (22-23 July): Showcasing – open event
 - Prospective customers invited
 - ITU Secretary General gave welcome address
 - Film crew, ITU photographer and media team on site



ITU IPTV Check List to become part of ITU-T Recommendation

Test report will be fed into the standards development process

H. 721 Conformity Check List

No.	Test item	ITU Standard			Check item
		Port 1 = VoD	Port 2 = VoD	Port 3 = Linear TV	
0	Test profile				
1	Physical interface	Reset button			
2		Remote controller			
3		Display interface			
4	Terminal Device Address and initialization	Protocol	IP, ICMP		
5			IPv6, ICMPv6		
6			DHCP		
7			DNS		
8	Service provider discovery and service interaction	H.720 conformance test			

H. 770 Conformity Check List

Conformance test									
ITU Standard	Process	Ref	Mode	Protocol	Information	Information	Information	Encoding	Version
ITU H.770 (0202-0)	Service provider discovery	Class 1	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
	Service interaction	Class 11	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
ITU H.770 (0202-0)	Service provider discovery	Class 1	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
	Service interaction	Class 11	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
LIMS based									
ITU H.770 (0202-0)	Service provider discovery	Class 1	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
	Service interaction	Class 11	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
ITU H.770 (0202-0)	Service provider discovery	Class 1	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0
	Service interaction	Class 11	Full	IPv4, IPv6, RTP/RTCP	Service provider information	Service provider information	Service provider information	SDP	0.0

Photos taken during the event

Setting up



Photos taken during the event

Kick-off meeting



Photos taken during the event Testing



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world

Photos taken during the event Showcasing with Secretary General's attendance



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Photos taken during the event

Showcasing



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Future ITU Interop Events

- Topics may include:
 - Home networking
 - VDSL 2
 - GPON (Gigabit Passive Optical Networks)
- Showcasing in ITU TELECOM (October, 2011)

Interested Companies SDOs, Forums, Consortia contact TSB
(interop@itu.int).

Global Conformity and Interoperability Portal

- Links to Conformity Databases from all the SDOs adhering reciprocally to this initiative
- Links to ICT testing labs and accreditation organizations worldwide
- Links to global Mutual recognition Agreements/Arrangements
- Information on ITU and other SDOs Interop events
- Contributions on best practices for testing

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Assistance to Developing Countries

Capacity Building and Test Centres

Capacity Building and Test Centres

- ITU-T (TSB) is implementing proposals on human capacity building in close collaboration with ITU-D (BDT) (WTDC Res. 47)
- ITU-T will assist in the establishment of test facilities in developing countries and in cooperation with international institutions
 - e.g UNIDO, International Laboratory Accreditation Cooperation (ILAC), International Accreditation Forum (IAF)
- Visits to various Labs are in progress in the regions
- A project to create a test centre in Tanzania is in progress

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Conclusions

Conclusions

- Resolutions 76(ITU-T), 47(ITU-D) and the new resolution approved at PP-10: ITU replies to the needs of Developing Countries regarding conformity and interoperability
- TSB and BDT fully committed in implementing the Conformity and Interoperability Programme
- Conformity one of the tools able to increase probability of interoperability
- Created the voluntary based and free pilot conformity database available to ITU members and non members
- ITU-T Interop events successfully started
- Capacity building activities and creation of test centres under way

Thank you

