

WG Activities on Accreditation of Software Testing



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APLAC Technical Committee**

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Background of Survey and WG's Goal

- **To understand** accreditation activities of software testing for APLAC's ABs through survey
- **To develop** an information document related to software testing ; and
- **To build** a strategic action plan for facilitation on software testing

Overview of the Survey on ABs

- . **Brief Outcome of Questionnaire Survey on Software Testing**
- . **Period of Survey : From 20 Sept. 2012 through 20 Nov. 2012**
- . **Circulated through 34 ABs : 12 ABs answered (35 % : answering rate)**

ABs	ACLA SS	A2LA	BoA	HKAS	IANZ	IAJAPAN	KOLAS	NATA	SAC	SCC	SM	CNAS
1. Testing Labs	o(2)	o(11)	X	X	X	o(6)	o(9)	o(15)	X	X	o	o(80)
2. Guides	o	o				o	o	o			o	o
3. SR	?	NA				NN	o	o		o	o	o
4. Experts, etc	NN	NA			o	NA	o	NA		o	o	o

1. Accreditation service,
2. ISO/IEC 17025 + Supplement requirement(SR) are enough
3. Necessity of comprehensive SR
4. Experts; Workshop, Training, etc

o : Yes, X : No, ? : Hard to answer, NA : No Answer, NN : Do Not Need, * NVLAP (34), NABL(1)

* SM wants to take training course by leading ABs such as A2LA, NVLAP, NATA, etc., and hold workshop

Questionnaire & Answer (1)

Q1.2 Criteria for Accreditation of SW testing:

- ❖ **ISO/IEC 17025 + Supplement Requirements**
- ❖ **Adopted Guidelines from other ABs' guidance : IANZ, HKAS**

Q1.3.2. Participating in APLAC SW WG to make the Supplement Requirements for the Accreditation of SW testing laboratory:

- **actively participation: ACLASS, NATA, KOLAS, SM, CNAS**
- **Observer : IANZ , IAJapan**

Q1.3.3. The APLAC SW WG should produce the SRs for accreditation of SW testing laboratory

- **IANZ , KOLAS, SCC, SM, CNAS**

Q1.4 Why do not accreditation services provide ?

- **Not yet result: HKAS**
- **Almost, no applicant**

Questionnaire & Answer (2)

Q1.5. Preparation for the guidelines: IANZ, HKAS

- **Q1.5.4. any comment: HKAS prefers to Workshop**
- **Q1.5.5. provide accreditation service of SW testing labs within 1 year: IANZ**

Q2. What type of field is your accreditation service of SW testing labs ? :

- **ACLASS : Telecommunications - IPV6, Functional and Software development security**
- **SAC : Electrical Testing**
- **KOLAS : Security, General SW**
- **NATA : Game, General SW, Health Care SW**
- **IAJapan : Security**
- **CNAS : General SW**

Questionnaire & Answer (3)

Q.4. Technical scope of accreditation of SW testing lab

- **ACLASS (Software only, Embedded Software, Security Software)**
- **IAJapan (Security Software)**
- **NATA (Gaming SW, General SW, Healthcare)**
- **KOLAS (Security, General SW)**
- **SM (General SW, Embedded Software, Security Software)**
- **CNAS (General SW)**
- **NVLAP (CC, Security, Healthcare) from web.**

Q.6. Accredited laboratories of SW testing:

- **ACLASS : 2 Labs, A2LA : 11 Labs, IAJapan : 6 Labs, NATA : 15 Labs, KOLAS : 9 Labs, CNAS : 80 Labs, NVLAP: 34**
- **SCC and HKAS will operate Labs within 2 years**
IANZ, SM, SAC

Questionnaire & Answer (4)

Q.7. Assessors for accreditation service

ACLASS, A2LA, SCC, IAJapan, SAC, NATA, KOLAS, CNAS

Q.7.1. Number of assessors

- **US : ACLASS ; Lead ; 3, Technical ; 3
A2LA ; Lead ; 3, Technical ; 3**
- **Canada SCC : Lead ; 1, Technical ; 2**
- **Japan IAJapan : Lead ; 3, Technical ; 5**
- **Singapore SAC. : Lead ; 1, Technical ; 2**
- **Au. NATA : Lead ; 4, Technical ; 16**
- **China CNAS : Lead ; 10, Technical ; 30**
- **Korea KOLAS. : Lead 7, Technical; 20**

Q.7.2. The training program for SW assessors

IAJapan, SAC, NATA, CNAS

Questionnaire & Answer (5)

Q.8. Opinions and comments for APLAC SW testing WG

Malaysia:

The area of software testing is new and requires extensive technical inputs and discussions in order to establish harmonized understanding on the relevant requirements for the purpose of accreditation.

STANDARDS MALAYSIA is on the opinion that the work of this working group is important to provide clear guidelines to ABs operating the accreditation of software testing. The WG may also contribute in matters related to technical training and resource person for assessment.

It is also important to have a reference point at APLAC level for the purpose of consultation with regards to software testing.

Summary of Results

- **Answering Rate of Questionnaire Survey : 35%**

- **WG's Activities on SW Testing**
 - **Actively Participation : ACLASS, NATA, KOLAS, SM, CNAS**
 - **Participation as observer : IANZ, IAJapan**
 - **Adoption of SR to be created: IANZ, SCC**

- **Scope of SW testing**
 - **General SW : ACLASS, SCC, NATA, KOLAS, CNAS**
 - **Security Software : IAJapan, SAC, KOLAS**

- **Accredited laboratories of SW testing**
 - **ACLASS, A2LA, NATA, IAJapan, KOLAS, CNAS, NVLAP, NABL**
 - **Not yet, but plan to accredit : SCC, SAC, SM, IANZ**

Discussion and Future Work

- **More than 14 Accreditation Bodies related to SW Testing in APLAC**
 - **12 ABs Answered**
 - **Related Bodies : NVLAP, NABL, etc**

- **Necessity of classification on scope of SW Testing ?**
 - **Lots of Type such as Security, Information Technology, Gaming SW, General SW, Healthcare SW, Embedded SW, etc**

- **To enlarge various activities of SW testing**
 - **Experts of leading ABs should participate in SW Testing WG**
 - **To build a strategic action plan such as workshop and training through Ad hoc group**

Thank You!

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Table on answers [2/4]

Q1.4	-	-	5) Others	-	5) Others			4) There is an AB but no applicant.	-	-	-	-
	<p>IANZ. : No applicants yet but interest</p> <p>HKAS : HKAS is studying the local demand on accreditation of SW testing. We have not yet drawn a conclusion whether we will develop the service.</p>									-	-	-
Q1.5	No	-	Yes	-	Yes	-	-	No	-	-	-	-
Q1.5.1	-	-	3	-	4) Others	-	-	-	-	-	-	-
	<p>HKAS : When preparing our Supplementary Criteria for the accreditation service, HKAS will made reference to regional or international guidance, if available, and may modify/supplement it base on inputs from local stakeholders to suit the local situation and need.</p>									-	-	-
Q1.5.2	-	-	Yes	-	YES (as long as the demand is confirmed.)	-	-	-	-	-	-	-
Q1.5.3	-	-	No. We have no applicants yet!	-		-	-	-	-	-	-	-
Q1.5.4	-	-	No	-	Yes	-	-	-	-	-	-	-
	<p>HKAS : We suggest APLAC SW testing WG to organize a workshop on SW testing to share the experience in this area. This will harmonise the practice amongst ABs</p>									-	-	-
Q1.5.5	-	-	1	-	5) No plan yet (We don't have a solid schedule yet)	-	-	-	-	-	-	-

Table on answers [3/4]

AB Qs	US		New Zealand IANZ	Canada SCC	HK HKAS	Japan IAJapan	Singa Pore SAC	Vietnam (BoA)	Australia NATA	Korea KOLAS	Malaysia SM	China CNAS
	ACLA SS	A2LA										
Q2	1, 3	1, 2	-	1	-	1	Others Electrical Testing	-	1	1	1	1,2
	US : Telecommunications - IPV6, Functional and Software development security											
Q3	Yes ()presum ed part of testing MRA coverage)	Yes	-	No	-	Yes	Yes	-	Yes	Yes	Yes	Yes
Q4	2, 3, 4	1, 2	-	1, 2, 3, 4	-	4	4	-		2(Genera l)	2,3,4	2
Q5	2	-	-	None	-	1	1	-	1(Single)	1(Single)	1(Single)	1
Q6	Yes	Yes	-	No	-	Yes	No	-	Yes	Yes	-	1
Q6.1	2 Labs	11 Labs	-	-	-	6 Labs	-	-	15 Labs.	9 Labs.	-	80 Labs.
Q6.2	O (ANX1)	Ref A2LA web	-	-	-	O (ANX1)	-	-	O (ANX1)	-	-	
	CN : SW testing labs use GB/T 25000.51-2010 Software engineering - Software product quality requirements and evaluation (SQuaRE) - Requirements for quality of commercial off-the-self (COTS) software product and instructions for testing (IDT ISO/IEC 25051:2006)											
Q6.3	O	No	-	-	-	No	-	-	No	No	-	
	US : Both are private companies and try to maintain both, Product certification and 17025 testing CN : Most of those accredited SW testing labs are governmental organizations or research institutes.											
Q6.4	-	-	-	-	-	-	-	-	That is a difficult question to answer	-	-	
Q6.5	-	-	-	Within 2 years	-	-	Within 2 years	-		-	-	

Table on answers [4/4]

Q7	Yes	Yes	-	Yes	-	Yes	Yes	-	Yes	Yes	-	1
Q7.1	Lead 3, Technical : 3	Lead 3, Technical : 3	-	Lead 1, Technical 2	-	Lead 3, Technical 5	Lead 1, Technical 2	-	Lead 4, Technical 16	Lead 7, many Technical	-	Lead 10, Technical 30
Q7.2	No	No	-	No	-	Yes	Yes	-	Yes	No	-	Yes
Q7.3	No	No	-	Yes	-	-	-	-	-	-	-	-
US : this competence comes from their industry training										-	-	-
Q7.4	-	5	-	-	-	-	-	-	-	-	-	-
Q8	-	5	-	-	-	-	-	-	-	-	-	-
<p>Malaysia: The area of software testing is new and requires extensive technical inputs and discussions in order to establish harmonised understanding on the relevant requirements for the purpose of accreditation. STANDARDS MALAYSIA is on the opinion that the work of this working group is important to provide clear guidelines to ABs operating the accreditation of software testing. The WG may also contribute in matters related to technical training and resource person for assessment. It is also important to have a reference point at APLAC level for the purpose of consultation with regards to software testing.</p>												