TITLE: **Recommended request from JTC 1 for action plans and information from SCs and SGFS on implementation of JTC 1 policy on Conformity Assessment and JTC 1 policy on Interoperability**

SOURCE: **SWG-CA**

STATUS: **For consideration by JTC 1 plenary in March 1996.**

DATE: **6 December 1995**

1.   Background

Increasingly, users, industry and governments are demanding IT systems that interoperate effectively. JTC 1 standards are critical elements in achieving interoperability and satisfying this user demand. JTC 1 therefore adopted a policy on Conformity Assessment in October 1994 (attached here as Annex A, ref. Annex C of the third edition of the JTC 1 Directives) and JTC 1 has adopted a policy statement on interoperability in March 1996 (JTC 1 N 3560 rev., attached here as Annex B).

In order to improve the effectiveness of JTC 1 standards in contributing to IT systems interoperability, JTC 1 needs to ensure that its policies on conformity assessment and interoperability are being implemented. Furthermore, JTC 1 has requested its SWG-CA to provide an appropriate coordination role in relation to these policies. In order to decide what action, if any, is required at the JTC 1 level, and what coordination work SWG-CA needs to undertake, JTC 1 needs information from the SCs and SGFS. JTC 1 needs this information in order to clarify the current situation in each SC and SGFS with regard to conformity assessment and interoperability, and to understand what actions each SC and SGFS plans to take to implement the JTC 1 policies on these topics.

In some SCs it has been recognised that conformity assessment against specific protocol standards does not guarantee interoperability of implementations in a real systems environment and consequently a differentiation between conformity assessment and interoperability assessment is necessary and useful in these SCs. However, it is premature to assume that there is a general problem. JTC 1 is therefore requesting each SC/SGFS to answer the following questions in order to provide SWG-CA with the relevant information from all SCs and SGFS, so that SWG-CA can provide the best possible guidance to JTC 1 on these issues.

2.   Request for action plans to implement the JTC 1 policies on conformity assessment and interoperability

SCs and SGFS are requested to develop action plans to implement the JTC 1 policies on conformity assessment and interoperability to the extent appropriate to the current and future market needs in their areas of standardization.

The action plans should specify the market areas for which conformity assessment and/or interoperability are important and should ensure as far as possible that

a) requirements in standards are specified unambiguously in order to facilitate the achievement of conformity to those requirements and interoperability of implementations;

b) assessment of the conformity requirements, including testability, is considered from the beginning and throughout the standards development process;

c) for standards designed to facilitate interoperability, the conformity requirements and any related test specifications are focused on interoperability; the test specifications may include both conformity and interoperability test specifications, if appropriate;

d) the JTC 1 plans for electronic distribution and publication are applied to all test specifications, because of the large size of such specifications and the need to be able to process them through applicable tools.

Please consider the following when developing the action plans:

1) prioritization and allocation of resources for standards projects focused on conformity assessment and/or interoperability to concentrate on those relevant to the key interfaces which have highest priority in the market place;

2) revision of assessment methodologies to make them more cost-effective by, for example, bridging the gap between conformity assessment and interoperability assessment;

3) awareness of conformity assessment and/or interoperability assessment methodologies and terminology in related areas, and harmonisation with these as far as possible;

4) development of interoperability testing methodologies to complement existing conformity assessment methodologies;

5) identification of relevant publicly available specifications covering conformity assessment and/or interoperability testing methodologies and conformity and/or interoperability test specifications, which should be transposed into standards or referenced by standards;

6) production of any required test specifications as an integral part of the standards development process;

7) where practical, use of formal description techniques, related verification tools, implementation development tools, and automated test generation and validation tools, to reduce costs and improve quality;

8) ways to ensure that standards intended to be implemented products are readily implementable;

9) ways to ensure that complexity is kept to a minimum, including minimising the number of options, and avoiding inclusion of more than one technical solution to a given problem;

10) liaison with and feedback from organizations active in interoperability assessment;

11) liaison with and feedback from system integrators, as well as vendors and users.

3.   Request for supporting information

3.1   Request for information on assessment methodologies

SCs and SGFS are requested to provide information on the status and use of conformity assessment and interoperability assessment methodologies applicable to their areas of standardization. The following list of questions is provided for guidance to assist SCs and SGFS to provide the appropriate information and to develop their related action plans. Please answer the appropriate questions.

a) What is the practice and experience with regard to conformity to standards and interoperability of IT systems?

b) To what extent is there a need to differentiate between conformity assessment and interoperability assessment?

c) Are reference implementations of standards used? If so, how does their use relate to conformity and/or interoperability assessment?

d) Are formal specifications of standards used? If so, how does their use relate to conformity and/or interoperability assessment?

e) What methodologies and tools (including formal techniques) already exist and are in use for assessment of conformity and interoperability?

f) What is the standardization status of each of these assessment methodologies and tools?

g) To what extent and in what manner is there a need for conformity assessment to be complemented by interoperability assessment?

h) What, if any, additional standardization is needed to cover interoperability assessment?

i) To what extent and in what manner is it possible to rely upon and to recognise, transpose or reference existing material from sources outside the SC/SGFS, e.g. publicly available specifications for testing methods or test suites?

j) Are there areas which are important for current and future market needs, for which conformity assessment and/or interoperability assessment methodologies need to be developed and/or standardized, and if so which are the high priority ones?

3.2   Request for information on key interfaces for interoperability and the associated standards

SCs and SGFS are requested to provide information on the key interfaces for interoperability and the associated standards within their scope which are needed to meet current and future market needs for interoperability at those interfaces.

a) What are the key interfaces and in which category of interface (e.g. API, CSI, HCI and ISI) does each fall?

b) What are the key standards associated with those interfaces?

c) Do all key standards for interoperability exist for those interfaces? If not, please identify which high priority standards for key interfaces for interoperability are missing?

d) Are the requirements in these key standards adequately focused on all those that are essential to achieve interoperability?

4. Expected SWG-CA action on the information requested

SWG-CA will review the action plans and information provided by SCs and SGFS in response to sections 2 and 3 of this document. SWG-CA will assess these action plans and information in order to clarify the current situation in each SC and SGFS with regard to conformity assessment and interoperability, and to understand what actions each SC and SGFS plans to take to implement the JTC 1 policies on these topics. SWG-CA will identify any actions that need to be taken by JTC 1 in order to ensure that its policies are implemented effectively.

These actions may, for example, include:

a) identifying methodology standards that are needed by multiple SCs but which are not being developed by any of the SCs;

b) identifying conflicting methodologies that need to be harmonised;

c) providing guidance to SCs that need advice on conformity assessment and/or interoperability matters;

d) identifying procedures that are in use in one SC which should be considered by other SCs;

e) advise JTC 1 on how best to monitor and coordinate activities in support of the policies on conformity assessment and interoperability in such a way that it becomes integrated into the normal management of JTC 1 activities on an on-going basis.