EWOS/TA/93/121 EWOS/EG-OSE/93/051 ISO/IEC_JTC1/SGFS N....

<u>EWOS-1</u>

<u>TITLE</u>: Comments on Concepts of OSE in TR 10000 and proposals for related changes to Parts 1 and 3.

SOURCE: EUROPEAN WORKSHOP FOR OPEN SYSTEMS

<u>DATE</u>:

STATUS: Contribution to SGFS Meeting, July 1993

EWOS submits its comments on TR 10000-1 and TR 10000-3 in three documents:

EWOS-1 Proposals for replacement text in both Parts on the subject of the overall aspects of OSE and the nature of OSE Profiles.

- EWOS-2 Itemised comments on TR 10000-1 on other topics, but including references to EWOS-1 proposals for completeness.
- EWOS-3 Itemised comments on TR 10000-3 on other topics, but including references to EWOS-1 proposals for completeness.

<u>Rationale</u>:

In order to give full weight to the implications of the understandings reached in London and recorded in N761, and to achieve consistency throughout TR 10000 with the concepts expressed in Part 3 clause 5, (which are further developed in this contribution), it is proposed that there should be some modifications to the terminology of "OSE Profiles" and related concepts.

It is proposed that Part 3 clause 5.2 should establish an "OSE Structural Model" which

- + builds from a pool of "Interface Specifications" (base standards, Interface Profiles, Publicly Available Specifications);
- + identifies the concepts of "Component Profiles" and "System Profiles";
- + relates these to the "OSE Reference Model" concepts

to show how the specifications for the Building Blocks which go to make up an Application Platform are realised.

Given the agreement reached in London to use the term "Application Environment Profiles" for the elements described in Part 3, and the understanding that "OSE Profiles" embrace all Profiles relevant to the definition of the OSE, it is appropriate that Part 3 should be retitled "Principles and Taxonomy for Application Environment Profiles".

Given the understanding that the elements of the specifications of an AEP are the interfaces between a Building Block and its surrounding environment (including protocols communicating with other remote Building Blocks), the elements previously called "Functional Profiles" should be renamed "Interface Specifications" (which include "Interface Profiles".

Because there are many aspects of parts 1 and 3 which relate to each other in a detailed way and resolution of comments on one part will affect resolution in the

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 $\label{eq:EWOS/TA/93/121} EWOS/EG-OSE/93/051$ other, it is recommended that discussion of the two parts should initially be taken together

EWOS has drafted the attached changes to TR 10000 parts 1 and 3 in order to give effect to these proposals, and submits them for the consideration of SGFS.

Proposal

This proposal is expressed as amended sections of TR 10000-1 and TR 10000-3 with new material highlighted. Only significant deletions are shown, not those which are related to the provision of new text.

TR 10000-1

1. Scope

This part of ISO/IEC/TR 10000 is an overall framework for functional standardization. It defines the concept of Profiles, and the way in which they are documented in International Standardized Profiles. It gives guidance to organizations making proposals for Draft International Standardized Profiles on the nature and content of the documents they are producing.

The distinction between "generic" and "industry-specific" Profiles is made in order to indicate that this Technical Report is primarily concerned with defining the concepts, and providing the framework within which "generic" Profile definitions can be standardized. These, in turn, provide the basis for an infinite set of "industry-specific", or even "enterprise-specific" or "person-specific" Profiles; however, unless there is an ISO/IEC Technical Committee willing and able to sponsor the creation and approval of such specific Profiles as standards, these will not fall within the scope of this Technical Report.

<<Original Figure 1 "Coffee Pot Model" (and N817 revision thereof) is deleted, since it combines two concepts - distinction between Generic/Industry-specific, and distinction between "OSE-Profiles" and "Functional Profiles", without fully indicating the way in which these concepts interrelate. The paragraph above has been brought forward from its previous position on page 2 to state the scoping issue as early as possible.>>

This Technical Report is concerned with an environment within which Profiles are defined and used, known by the term "Open System Environment" (OSE). Its salient characteristics are those which permit systems to interwork consistently with each other, and which facilitate the movement of applications, data and users from one system to another.

Two main domains of Profiles are identified here to cover the specification of the OSE:

- + <u>Application Environment Profiles</u> (AEP) which are combinations of Interfaces for the purpose of defining the functionality within an OSE System. (See ISO/IEC TR 10000-3 Clauses 5 and 6 for explanation of the concepts of SEPs)
- + <u>Interface Profiles</u> which are part of the overall class of Interface Specifications.

In this context, Interface Specifications are the definitions of any interfaces to OSE Systems - the Base Standards, and Interface Profiles derived from them.

The OSE structural model described in Part 3 gives the following fundamental classification of domains of OSE Profiles which provide specifications of elements of the OSE as shown:

System Profiles	specify	Systems
-----------------	---------	---------

	\rightarrow	
defined in terms of \downarrow		combine to give \uparrow
Component Profiles	specify \rightarrow	Building Blocks
defined in terms of \downarrow		combine to give ↑
Interface Specifications	specify \rightarrow	Interfaces

Table 10SE Profile Model

Together, the domains of System and Component Profiles make up the set of Application Environment Profiles (AEPs) which specify sets of functions provided by the OSE.

This part of ISO/IEC/TR 10000 is concerned with describing a framework within which subsequent parts are able to define the more specific principles and taxonomy of Profiles in each domain.

ISO/IEC/TR 10000-2 defines the principles and classification for OSI Profiles (part of the class of Interface Profiles included in the set of Interface Specifications illustrated in Figure 1) which may be or have been submitted for ratification as International Standardized Profiles.

NOTE - These OSI Profiles specify OSI base standards, and those base standards concerned with interchange formats and data representation which are expected to be used in conjunction with them.

Further parts of ISO/IEC/TR 10000 may be developed to define other classes of Interface Profiles.

ISO/IEC/TR 10000-3 defines the principles and classification for Application Environment Profiles which may be or have been submitted for ratification as International Standardized Profiles.

ISO/IEC/TR 10000 is applicable to all International Standardized Profiles of ISO and IEC. Its primary focus is the area of competence of ISO/IEC JTC1, but by mutual agreement with JTC1, other Technical Committees may undertake similar functional standardization activities leading to the inclusion of additional material in this Technical Report.

NOTE - Such material may either be located within the parts of ISO/IEC/TR 10000 which are the responsibility of JTC1/SGFS, or may take the form of separate parts, drafted and approved by the relevant Technical Committees of ISO or IEC.

The scope of OSE profiling embraces the use of the standards for a wide range of areas of Information Technology functionality, including, in addition to the specific area of Open Systems Interconnection addressed in ISO/IEC/TR 10000-2, any formats or functionality which are encompassed by the four classes of reference points of the ODP Reference Model (see the ODP Descriptive Model, ISO/IEC 10746-2 <<currently CD: SC21/N7524>>). These are:

- + Programmatic reference point at which a programmatic interface can be established to allow access to a function
- + Perceptual reference point at which a human-computer interface can be established
- + Interworking reference point aat which a communication interface can be established to allow interoperability between two systems

+ Interchange reference point - at which an external physical storage medimum can be introduced into the system.

It should be noted that the OSE Profiling activity is not limited to the generic functionality encompassed by these reference points; it is also to be applied to industry-specific standards topics, such as functions and interfaces defined for particular application areas; e.g. trade data interchange formats in ISO/TC 154), documentation (bibliographic) protocols in ISO/TC 46, banking protocols in ISO/TC 68, industrial automation protocols in ISO/TC 184, which may also specify particular uses of the generic Profiles.

<<It is proposed that the existing rather selective set of specific scoping details should be replaced by the above general reference to the scope of Open Systems standards taken from the ODP Reference Model. The scope of AEPs in part 3 is expected to cover nearly all these items see clause 5. However, the explicit references to extending beyond the scope of JTC1 should remain, being in a different dimension.>>

such topics as:

+ Operating System Interfaces (POSIX)

+ Interfaces to Application Programs and to human users

+ Programming languages and related bindings

+ Character sets and their coding

+ Open Distributed Processing;

+ the representation of information or objects on storage media

+ logical and physical storage structures.

2. Normative References

<< to be updated as required>>

3. Definitions

For the purposes of this part of ISO/IEC/TR 10000, the following definitions apply:-

3.1 Terms defined in this part of ISO/IEC/TR 10000

3.1.1 Application Environment Profile: An OSE Profile which specifies a complete and coherent subset of the Open System Environment <u>necessary to support a class of applications</u>.

3.1.2 Base Standard: An approved International Standard, or CCITT Recommendation which is used in the definition of a Profile.

Functional Profile.....

3.1.3 Generic Application Environment Profile: An Application Environment Profile which is not specific to a particular community of use.

Generic Functional Profile....

3.1.4 Generic Interface Profile: An **Interface** Profile which is not specific to a particular community of use.

3.1.5 Industry-specific Application Environment Profile: An Application Environment Profile which deals with specific industry requirements.

Industry-specific Functional Profile...

3.1.6 Industry-specific Interface Profile: : An Interface Profile which deals with specific industry requirements.

3.1.7 Interface Profile: An OSE Profile defining one interface of the Open System Environment.

3.1.8 International Standardized Profile: An internationally agreed-to, harmonized document which identifies a standard or group of standards, together with options and parameters, necessary to accomplish a function or set of functions.

3.1.9 Interoperability: The ability of two or more systems to exchange information and to make mutual use of the information that has been exchanged.

3.1.10 Open System Environment: The comprehensive set of interfaces, services, and supporting formats, plus user aspects, for interoperability and/or portability of applications, data, or people, as specified by information technology standards and profiles.

3.1.11 OSI Profile: An Interface Profile which defines a communications interface of the OSE that complies with and is consistent with the Basic Reference Model for Open Systems Interconnection in ISO/IEC 7498.

3.1.12 Portability (of Application): The ease with which an application can be transferred from one application platform to another.

3.1.13 Portability (of Application Software): The ease with which Application Software can be transferred from one information processing system to another.

3.1.14 Profile: A set of one or more base standards, and, where applicable, the identification of chosen classes, conforming subsets, options and parameters of those base standards, necessary for accomplishing a particular function.

NOTE - An International Standardized Profile includes the specification of one or more Profiles.

3.2 Terms defined in Part 3 of ISO/IEC TR 10000

<< List of terms to be supplied by editor; e.g. Application Platform, Component Profile, System Profile>>

3.3 Conformance Terminology

<<No current proposals for changing this section. However, EWOS supports an SC21 NWI Proposal on Open System Assessment Methodology, which, if accepted, will result in agreed terminology relevant to this Technical Report, and the ISPs developed in compliance with it. Similar developments will be requied for clauses 6.4-6.7 and 8.4>>

<<Two further clauses require amendment to reflect the preceding proposed changes in terminology from "Functional Profile" to "Interface Profile", and other changes to the Taxonomy proposed in the following changes to Part 3. These are:>>

6.3.3 Specific types of Profile definition

Different classes of Profile, corresponding to the major divisions of the Taxonomy, may have unique aspects to their definition, which are specified in detail in appropriate parts of this Technical Report. For example:

- a) an OSI Profile **is an interface Profile that** specifies the application of one or more OSI base standards or other OSI Profiles in support of a specific requirement for interworking between systems complying with the structure defined by the Basic Reference Model for OSI.
- b) an Interchange Format and Representation Profile is an interface Profile that specifies the application of one or more base standards in order to define the layout and internal structure of a document, an image, or a controlling data-object, which is interchanged between systems; such Profiles comply with the generic data specifications of their referenced base standards.
- c) an Application Environment Profile specifies a complete and coherent subset of the OSE, comprising a function or set of functions. The functions or set of functions are specified in terms of the behaviour at their interfaces by reference to base standards and/or ISPs.
- d) a generic Profile (either interface or application environment) can be used as the basis for an industry-specific Profile, by indicating the manner in which its optional features become included or excluded when used in a specific environment or domain of application. Industry-specific Profiles may also be defined without dependence on a pre-existing generic Profile.

NOTE - No industry-specific Profiles are currently defined within the scope of this Technical Report, either in terms of their particular structure and contents, or in the Taxonomy in clause 7.

7.3 The Taxonomy of Profiles

Profiles are divided into a number of classes, each class identified by a different initial letter. This letter is the basis of a structured set of Profile identifiers, which forms the representation of the Taxonomy. The main characteristics of the Taxonomy are stated here, including all defined uses of the initial letter. Subsequent parts of ISO/IEC/TR 10000 provide the detail of this system.

7.3.1 Application Environment Profiles

The Taxonomy of Application Environment Profiles is defined in ISO/IEC/TR 10000-3.

Application Environment Profiles are divided into the following class and subclasses:

P - Application Environment Profiles

PC - Component Profiles

PS - System Profiles

In the context of the scope of OSE as outlined in clause 1, this classification covers the domain of "Generic Application Environment Profiles".

No classification is assigned to the domains of "Industry-specific Profiles", which are identified in this Technical Report only in concept, and which are not therefore subject to classification or control under the common processes of ISO/IEC.

7.3.2 OSI Profiles

The Taxonomy of OSI and OSI-related Interface Profiles is defined in ISO/IEC/TR 10000-2.

In order to decouple representation of information or objects from communications protocol support, and application-related protocol from subnetwork types, OSI and OSI-related Profiles are currently divided into the following classes:

- F Interchange Format and Representation Profiles.
- A Application Profiles using Connection-mode Transport Service (i.e. using T-Profiles).
- B Application Profiles using Connectionless-mode Transport Service (i.e. using U-Profiles).
- T Connection-mode Transport Profiles, related to subnetwork type.
- U Connectionless-mode Transport Profiles, related to subnetwork type.
- R Relay functions between T-Profiles or between U-Profiles.

Other classes or sub-classes of OSI or other Interface profiles may be required.

TR 10000-3

<<It should be a general objective of SGFS that TR 10000-3 be structured in the same way as TR 10000-1, in order to facilitate cross-reference from specific to generic text. This implies also that generic text within Part 1 should not be repeated in Part 3. However, there is generally an advantage in keeping the clause structures of the two parts similar, so that specific requirements can easily be added to Part 3 in the correct context.>>

1.Scope

This part of ISO/IEC/TR 10000 provides a context for functional standardization in support of the Open System Environment (OSE). It defines the basic objectives and concepts of the OSE, from which are derived a methodology and format for creating Application Environment Profiles specified as International Standardized Profiles.

This Technical Report gives guidance on the nature and content of ISP documents, to organizations proposing Draft ISPs for AEPs.

The OSE is defined as a comprehensive set of interfaces, services and supporting formats, plus user aspects, for interoperability and/or portability of applications, data or people, as specified by information technology standards and profiles. This Technical Report analyses the structure of the OSE and of the systems which populate it, and relates this structure to requirements for AEPs. As a result, two classes of AEPs are identified:

+ <u>System Profiles</u> - which define subsets of the OSE necessary to support a particular class of applications

+ <u>Component Profiles</u> - which define particular functions which go to make up System Profiles.

The relationship between these two classes is developed within clauses 5 and 6 of this part of this Technical Report, where they are related to the building blocks which go to make up the support of a complete application environment. This set of relationships is summarised in table 1 of Part 1 of this Technical report. The Profile classes can be illustrated by the following figure, which demonstrates that the objective of Profiling the OSE is to specify a limited number of Component Profiles, based on a large set of Interface Specifications (some of which are Profiles), and permitting the construction of a potentially large set of System Profiles, of which only a small number of generic ones will be produced as ISPs, the remainder being Industry Specific.

<<Insert revised Coffepot Model which still has the three segments, but now named:

System Profiles

Component Profiles

Interface Specifications

Figure 1 Classes of Profiles for OSE

Each Profile is created defined in order to satisfy a clearly stated set of user requirements.

A taxonomy, or structured classification, of Application Environment Profiles is provided in Clause 7 of this Technical Report. The purpose of this taxonomy is to provide a labelling scheme to identify profiles and to indicate, by their place in the structure, their functional relationship to each other. The taxonomy also indicates the basis on which other Interface Profiles (including OSI) and newfunctions are referenced and utilized.

A small set of generic OSE profiles will be defined to support the creation of what may be a substantial number of OSE profiles created to support specificindustries. These generic profiles will also draw on and support the definition offunctional profiles such as OSI profiles.

ISO/IEC/TR 10000 is applicable to all International Standardized Profiles of ISO and IEC. Its primary focus is the area of competence of ISO/IEC JTC1, but by mutual agreement with JTC1, other Technical Committees may undertake similar functional standardization activities leading to the inclusion of additional material in this Tecchnical Report.

<<Delete last two paragraphs - the former is reworded before the figure, and the latter is covered in Part 1 Clause 1.>>

3.Terminology

<< See also EWOS-3 for further changes proposed to this clause.>>

Add extra definitions:

Building block: A separately implementable element of an OSE system.

Component profile: An AE-profile that specifies a building block in terms of the interfaces that it supports and the interfaces that it uses, and the relationships between these interfaces.

System profile: An AE-profile that specifies a set of functions necessary to support a class of applications. It specifies the behaviour to be observed at the interfaces of the application platform on which the class of applications can run.

NOTE - A system profile is defined in terms of component profiles that specify building blocks that can be combined to realise the application platform.

5. OSE Concepts

Rationale for proposed change:

1)There is a need to provide a clearer statement of the OSE structural concepts which provide the context for OSE profiles.

2)There is need to establish a clear relationship between OSE profiles and the OSE RM - in particular, this requires relating the concept of "building block" to the OSE RM structure.

Proposed change:

Replace clauses 5.2 and 5.3 by the following (New text is highlighted and current text is preceded by identification of its position in the current text):

5.2 OSE System Concepts (Figure 2)

The OSE structural concepts are developed in two stages: first, by distinguishing between the fundamental elements of Application Software, Application Platform and Platform External Environment; second, by refining the structure of the Application Platform (and also, potentially, the Application Software) in terms of building blocks.

NOTE - The concepts described here are aligned with those defined in the "POSIX Reference Model" - described in the document "Guide to the POSIX Open System Environment" - commonly known as POSIX.0 - expected to be tabled as a DTR in JTC1/SC22.

5.2.1 Fundamental system elements

An OSE system exists as an element of a configuration of OSE systems that form part of an OSE scenario. An OSE scenario is defined to meet a set of objectives which determine the behaviour required from each OSE system, where this behaviour is expressed in terms of the processing requirements for the system and the nature of its interworking with other OSE systems participating in the scenario.

An OSE system is described in terms of three fundamental elements, allowing a separation to be made between the specifications for these elements. The elements are:

(From 5.3.1)

- a) **Application Software.** Application software is the computing element supporting the particular needs of a user (e.g. the payroll, accounting, spreadsheets and other business systems that provide information to users in the course of conducting business). The application software includes data, documentation and training, as well as programs.
- b) Application Platform. The application platform is composed of the collection of hardware and software components that provide the system services used by application programs. Application platforms facilitate portable application software through services accessed by application programming interfaces (APIs) that make the specific characteristics of the platform transparent to the application. The application platform components include the hardware and software that

EWOS/TA/93/121 EWOS/EG-OSE/93/051 interface directly to the hardware (i.e. the hardware drivers) in supporting the application software.

c) **Platform External Environment.** The platform external environment consists of those system elements that are external to the application software and the application platform (e.g. systems and services executing on, or provided by, other platforms or peripheral devices).

5.2.20 SE interfaces and services

5.2.2.1 Introduction

(From 5.2.2) An interface is a boundary between two (or more) elements in a system or scenario and may be referenced in the definition of a relationship between them. A service is a capability which a service provider element makes available to a service user element at an interface between those elements. An interface specification is a document which specifies how a particular service is invoked at a specific interface. This implies that where either:

+ a specific service is available at multiple interfaces

or

+ multiple services are available at a single interface,

separate specifications may be needed for each service/interface pair.

NOTE - While the meaning of, and relationships among the three terms interface, service and interface specification may seem intuitively obvious, they are often used interchangeably. This can lead to considerable confusion, since they are quite different concepts. The importance of unambiguous terminology is clear when discussions rely on the concept of specifications defined to satisfy the requirement for a service at an interface.

(From 5.3, para 1) There are two types of interface between the fundamental elements of an OSE system identified in 5.2.1:

- a) the Application Program Interface (API), which is the internal interface between the application software and the application platform;
- b) the Platform External Interface (PEI), which is the external interface between the application platform and those system elements that are external to it and to the application software.

5.2.2.2 API Concepts

(From 5.3.2) Definition of a clear interface between the application software and the application platform is fundamental to enabling application portability. The services that are provided at the API divide into two groups:

a) internal system services that are provided directly by the application platform (e.g. time services, execution services and exception handling);

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b) services which provide application software with access to, or control of, operations that may have an effect at the platform external interface: human/computer interaction services, information interchange services, and communication services.

The API is the boundary across which application software uses facilities of a programming language to invoke services. The facilities used can include procedures or operations, shared data objects and resolution of identifiers. An API specification documents the services available at the interface and the access methods for accessing those services.

5.2.2.3P EI Concepts (Figure 3)

(From 5.3.3) The PEI is divided into three interfaces. These are:

- a) the Human Computer Interface, which is the boundary across which physical interaction takes place between a person and information technology;
- b) the Information Interchange Services Interface, which is the boundary across which external, persistent storage is provided (requiring the specification only of format and syntax for data portability and Interoperability);
- c) the Communications Services Interface, which provides access to services for interaction application software and application platforms in other OSE systems.
- 5.2.2.4 Interface specification and use

(From 5.3, paras 2-6) OSE profiles apply to the specification of the API and the PEI. The profiles address only the interfaces together with the services and supporting formats offered across those interfaces. The application platform provides services to a variety of users across the API and the PEI, examples are:

- + A human being invokes the services of the application platform at the Human /Computer Interface of the PEI.
- + A programmer invokes the services of the application platform at the API by writing source code which, when compiled and executed, accesses the services.
- + In a distributed environment, application platforms can interact using communication mechanisms external to the platform through the Communication Services Interface of the PEI.
- + Application software requests communication with application software on another application platform at the API. The application platform translates these requests into appropriate action at the Communication services Interface of the PEI.

5.2.3 <u>Building blocks</u>

Major OSE objectives (see 5.1) are to enable a user:

+ To extend or reduce the capability of an application platform and

application software by adding or removing elements that perform particular functions;

- + to realise a system by combining elements from different sources and to exchange elements to meet changing requirements;
- + to specify an OSE system to meet their requirement by combining partial specifications.

In order to meet these objectives an application platform or application software can be realized by combining building blocks that provide the functionality required.

A building block provides services through the interfaces that it offers, using (if necessary) the services of other building blocks through the interfaces that they offer. The interfaces offered by a building block can be one or more of APIs, and PEIs. Where a building block uses the services of other building blocks within the same application platform, it does so through their APIs.

 ${\tt NOTE}$ - The use of API in relation to building blocks is a generalisation of its use in relation to the application platform in 5.2.2.

(From 5.2.2, last para., last two sentences) The mechanism which implements the services offered by a building block are hidden behind its interfaces. The building block is characterised by its behaviour at its interfaces and interactions with the building block are defined by its interface specifications.

6. Application Environment Profile Concepts

AEPs are specified in order to fulfil the purposes defined in clause 5.

The concepts of an AEP, and the general characteristics of its content and style, follow the generic descriptions given in Part 1 clause 6, and are not repeated in this Part. The most significant addition is to reflect the relationships between System and Component Profiles introduced to support the characteristics of the OSE System Concepts defined in clause 5.2.

6.1 System Profiles and Component Profiles

There are two types of Application Environment Profile required to support the structural aspects of OSE Systems architecture based on the concept of an Application Platform:

+ System Profiles

+ Component Profiles.

A System Profile specifies a subset of the OSE necessary to support a class of applications. It specifies the behaviour to be observed at the interfaces of the Application Platform on which the class of applications can run. The subset defined in such a System Profile is complete and coherent within the context of the class of application supported.

A System Profile can be defined in terms of Component Profiles that specify Building Blocks that can be combined to realise the Application Platform.

A Component Profile specifies a Building Block in terms of the interfaces tht it supports, the interfaces that it uses, and the relationships beteen its behaviour at these interfaces.

The functionality contained within a Building Block is sufficiently bounded and self-contained as to be suitable for identification as a user's functional requirement and as an implementable element of an Open System. (See Part 1, clause 7.2.2 (a) where such a requirement is fundamental in the definition of an element of the Taxonomy). Hence a Component Profile supports the User/Supplier relationship requirement identified in the generic Profile Purposes in Part 1 Clause 5.

NOTE - It is also possible for an implementable element to be composed from a combination of Building Blocks, providing and supporting the sum of the "external" characteristics of the separate elements within it. In this case, the specification of the element is provided by the set of Component Profiles.

Other material in Clause 6

The material currently provided in clauses 6.2, 6.3 and 6.4 repeats generic text within Part 1, and is therefore not needed in this part, unless any additional specific text for AEPs can be identified. These clauses should be reduced to place holders at this time.

The text in clauses 6.5 to 6.7, concerned with Conformance and Testing is the subject of a separate liaison statement from EWOS regarding support for an SC21 NWI on Open Systems Assessment Methodology. The outcome of this work will require to be represented in this part of TR 10000 in due course. In the meantime, the text should be reduced to placeholders, with a note:

NOTE - Conformance requirements and methodology for AEPs is the subject of ongoing work in JTC1 [SC21 if that is where it is done], and this clause is to reference the outcome of that work when it becomes available.

Clause 6.5.4 is an example of the sort of methodology that is required to provide tests for the interfaces specified in an AEP, and should be retained as a Note until the NWI delivers a test architecture such as that identified in the NWI Proposal.

Relationships between Interfaces also require to be considered as an area for special consideration in testing.

Amend Clause 7 to remove the material in 7.1, which duplicates TR 10000-1 (N687 text - not N817) and to align the proposed taxonomy with the changes proposed for Part 1 earlier in this contribution:

7. Taxonomy of Application Environment Profiles

Within the overall Taxonomy of Profiles defined in ISO/IEC/TR 10000-1, the Taxonomy of Application Environment Profiles is defined as follows.

Application Environment Profiles are divided into the following class and subclasses:

P - Application Environment Profiles

- PC Component Profiles
- PS System Profiles

In the context of the scope of OSE as outlined in part 1 clause 1 of this Technical Report, this classification covers the domain of "Generic Application Environment Profiles".

No classification is assigned to the domains of "Industry-specific Profiles", which are identified in this Technical Report only in concept, and which are not therefore subject to classification or control under the common processes of ISO/IEC.

NOTE - The population of this taxonomy with actual Profiles is for further study. As an example of the sort of System Profiles that are likely to be required, the following table is proposed:

Attach the existing taxonomy on page 30 of N862, but with the "PO" part of the identifiers changed to "PS" – e.g.

- P Application Environment Profiles
 - PS System Profiles
 - PSB Base Environment Profiles PSB1 Generic Base Environment PSB2

PSE....