Telecommunications and Information Exchange Between Systems

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Title: **Approved Disposition of Comments on CD ballot of ISO/IEC 29168 (6N13994)**
Date: **23 September 2009**
Source: **Project Editor (Jun Seob Lee)**

This document contains the approved disposition of comments received from National Bodies on the CD ballot of ITU-T X.oid-res | ISO/IEC 29168 (6N13994). The NB comments from United Kingdom and China are recorded in 6N14069.

0	1	2	(3)	4	5	(6)	(7)
No.	MB[1]	Clause No./ Subclause No./ Annex (e.g. 3.1)	Paragraph/ Figure/Table/N ote (e.g. Table 1)	Type of com- ment[2]	Comment (justification for change) by the MB	Proposed change by the MB	PE's proposal
1	GB	All		ge	This comments document is part of a .zip file containing: UK comments on 6N13994 (this document) UK contribution to Geneva meeting – Attachment A UK proposed revision of CD1 ballot text – Attachment B The UK draws attention to Attachment A, which has also been submitted to ITU-T SG17 as a UK contribution. Note that 1.12 of Attachment A recommends parallel progress of the standard's text and resolution of governance, managerial, and charging issues. The UK is voting DISAPPROVE WITH COMMENTS on CD1, based largely on Attachment A. The following UK comments in this document provide further clarification and text to address most of these issues. **If the proposed new text is adequately addressed, the UK vote will change to APPROVE.** Nonetheless, the UK believes that there should be a second CD ballot, with a view to an FCD ballot out of the Barcelona meeting of SC6 in Jan 1010 if possible.		**Noted.** The UK vote changed to APPROVE
2	GB	All		ge	The UK also draws attention to Attachment B. This contains a number of minor editorial/grammatical changes to the CD1 text, plus proposed new text referred to from comments in this document. In some cases, the propose changes have not been completely finished, and there is a TBD in yellow for these, in some cases supplemented by notes of the intended content. Also all clause references inserted are yellowed, as they need to be replaced by bookmarks and then the entire document clauses renumbered.	Accept the minor editorial changes, and review the new text when disposing of the comments below. For items marked TBD, produce text in Geneva if possible (by the Editorial team or by Q.12 | WG 9) or else flag them as areas needing comment on CD2. For yellowed clause references, the Editor should insert appropriate bookmarks, use bookmark references, and delete the yellow. It would also be desirable to add a Contents list (immediately before the Introduction) for ease of	**Accepted.**

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						access.	
3	GB	Clause 7		ge	The UK would urge Q.12/17 at its joint meeting in Geneva in September to schedule and widely publicise a joint meeting to specifically address (and hopefully obtain agreement on) the way forward in this area.	Produce text in clause 6ter of Attachment B that clearly and simply describes the necessary zone files, including the handling of the keys needed for DNSSEC (RFC 2535)	**Accepted.** The joint meeting is arranged. DNS zone file configuration will be added in Clause 7 based on the implementation guideline with a new title "Configuration and operation of the OID Resolution System". Security consideration will be moved to Clause 6 from Clause 9. It was agreed that a clause on Security Considerations should be included in the ORS draft. This probably covers any text that we might be including related to DNSSEC and/or NSEC3, but would include reference to phishing (using the text referred to about as the basis), but saying this issue was the responsibility of X.660. It would also say "There are no other phishing issues introduced by X.oid-res other than those covered by X.660."
4	GB	Clause 2 revised		te	The Editorial team should begin preparation of RER and A.5 justifications for the references to the RFCs as necessary.		**Accepted.** PT has HW to produce RER and/or A.5 justification is necessary based on CD2(FCD) text.

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5	GB	New		q	Q1 The UK recognises that the ORS provides for the authenticated return of information, but it is not clear whether the use of authentication is optional or mandatory Q2 The UK asks whether there is also a need for return of encrypted access information from the DNS look-up.	For Q1: Agree that authentication is mandatory For Q2: Discuss. If this is an agreed requirement, then further discussion of encryption key issues will be needed.	**Noted.** There was considerable discussion on the implications of using DNSSEC to secure the high level zone files (HLZF). Text related to this is in the minutes of the Geneva Sep 2009 meeting. The CD2 text will include the final version of this, describing both options and their implications, and will state that a decision of which option to use has not yet been taken. The text will be included as a level 1 or level 2 heading with the heading "Use of DNSSEC" followed by a note saying "This clause describes two options for support of DNSSEC in the HLZF and the implications. National Bodies are invited to comment on the accuracy of this text, and their preferred option. The final Recommendation | International Standard will state which option was taken, and the implications for lower level nodes. It was agreed that there is no requirement for the return of encrypted material. The RFC for DNSSEC states that it

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							provides only authentication as the DNS system is intended to provide the same information to all inquirers without use of any access control mechanism.
6	GB	Everywhere		ed	The use of the acronym "ORS" needs to be agreed. The UK has proposed adding it to the title as "Object Identifier Resolution System", but it is used in the body to mean "OID Resolution Server" (see Figure 1). It is not defined in clause 4	Define "ORS" as "OID Resolution System" in clause 4, and do not use it for OID Resolution Server in Figure 1 and elsewhere.	**Accepted.** PE will modify the entire text with the terms ORS for OID Resolution System and ORS client and ORS server.
7	GB	Introduction		te	More text is needed, particularly to introduce the use of the DNS, and a summary of the International Object Identifier Tree (including Unicode labels and the canonical form of an International Object Identifier (OID)	See proposed text in Attachment B	**Generally Accepted.** But DNSSEC is optional. See No.5
8	GB	Clause 2		te	1) There appear to be some important references missing, that have been included in Annex B 2) It is necessary to ensure that all normative references are referenced in the text. 3) It is possible that some normative references should instead be part of the Bibliography	1) Insert the references 2) Check they are referenced, and insert references where appropriate, or move to the Bibliography 3) Addressed by 2) above	**Accepted.**
9	GB	3.2		te	The UK believes that some important concepts are missing from the definitions. Also it should be noted that neither X.660 nor X.680 define "object identifier", so this cannot be imported from either, and should probably be added to the ORS standard. There are terms defined in X.660 that are needed, namely:	(See Attachment B for proposed text) Remove "object identifier" from 3.1.1 and add the definition in 3.2 (see 3.2.1quat) Add the following imports from X.660 in 3.1: integer-valued Unicode label international Object Identifier tree OID international resource identifier registration authority (RA)	**Generally Accepted.** The "object identifier" is defined in 3.7.11 of X.660. PE think that the terms high-level OID DNS administrative Registration Authority are not needed. See No.5 and No.26. The definition is "the organization that maintains the zone files that provide support

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						Add the following definitions to 3.2: application-specific OID resolution process DNS protocol general OID resolution process high-level nodes of the OID tree object identifier partial DNS-OID-mirror high-level OID DNS administrative Registration Authority trust anchor The Editor is to renumber all clauses and sub-clauses once changes are all done, after checking that all references are bookmarks.	for the DNS OID root and for all OID nodes that can be referenced without an identifier in OID value notation (see X.660, Annex A). This will become precise when the table proposed for clause 10 in the UK ballot comments has been completed. We have had many suggestions for the term for this organization. One of these included use of the term "Custodian". Another included use of the term "Manager". The currently favoured term for this organization is "OID high level zone file Manager".
10	GB	Clause 4		te	Add abbreviations	See Attachment B for text Add: OID DNS RA	**Rejected**. See No.9
11	GB	New clause 4bis		te	Text is needed to explain the relationship of the OID tree to the DNS tree	Review and insert the text in 4bis of Attachment B	**Accepted in principle.**
12	GB	Clause 5 and later	All figures	ed, q	The UK wishes to draw attention to JTC1 N9656 (dated 5 Aug 2009). It is not totally against the use of colour, but does suggest strongly that unnecessary colour should be avoided, and when it is used colors should be selected such that they remain distinguishable when reproduced on a monochrome printer. JL has been involved with several other standards that	Discuss the use of colour in the figures.	**Accepted.** Remove all yellow (inserting frame), change red to black, but keep colored icons.

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					used colour (arguably) unnecessarily that have been accepted by ITTF, so the UK has no strong views on this, but the issue should be discussed.		
13	GB	5.1	Figure 1	ed	See GB 5 on the use of "ORS". In Step2, the return of "Associated information" should perhaps say "Associated information (URLs)" It is not clear what is the purpose of the further DNS lookup in the figure.	The nature of the returned information needs further specification: There seem to be: a) Return of a canonical form b) Return of child information, including a DNS name where available or a statement that there are OID children that are not part of the DNS-OID-mirror c) Return of (URLs for?) application-specific information – is a type or category field needed for this or both access methods and a URL, as currently described in the last sentence of 5.3 This was discussed briefly at the Tokyo meeting. Discuss further, and determine what functionality and text is needed.	**Noted.** There was further comment from SG16 in this area asking for a fourth type of output. The PE will attempt to produce clarifying text.
14	GB	All		ed	In the text there are frequent occurrences of .oid.foo, or .oid.xxx.yyy. These need eventually to be replaced, and should be yellowed with an Editors note at the head of the document.	Yellow all occurrences of .oid.foo.	**Accepted.** Add NOTE at the head of the document.
15	GB	6.1new		te	The UK is aware of existing material addressing case sensitivity (or not) or Unicode labels, and the handling of this in the DNS, and of case-folding issues. Also of the possible use of punycode or % encodings. There is an agenda item for these in Geneva	After discussing the agenda item(s), produce at least basic text for the clause 6.1new in Attachment B. (currently marked "TBD" Ideally, produce some examples for the handling of non-ASCII Unicode labels, and for the handling of case folding.	**Noted.** It was agreed that the mapping of Unicode labels into pure ASCII text would be fully specified in the next draft, and that there would be a note saying that all communication between an

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Date: 2009-9-14 | Document: **JTC1 SC6 N13994**

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							ORS client and an ORS server will be encoded entirely in ASCII. There was agreement that case folding, NFKC and punycode would be used. Text will be provided to the PE based on input to the meeting.
16	GB	6.1		te, q	Does this clause need to make some reference to the difference between port 53 and port 80 for DNS interrogation?	Discuss, and add text if necessary, probably as a sub-clause between 6.1new and 6.1?	**Discussed.** It was agreed that we do not need to mention the port.
17	GB	6.2		te	It is not clear how the authentication is conveyed, or where the trust anchors are to be found. More text is needed here.	Discuss in Geneva, and add at least outline text if possible.	**Noted.** The PE will attempt to produce clarifying text.
17	GB	6.2	last para	te	This states that " This Recommendation | International Standard specifies new Service Parameters for the general OID resolution process" Which of these "orpservice" values are already allowed?	First, it does not! (But possibly should!), but we need to establish a plan to get these agreed and recorded by IETF. Will it need an RFC? Discuss, and establish the way ahead. Avoid the use of "new", as that dates the standard.	**Noted.** Change "new Service Parameters" to "Service Parameters" in Clause 6.2. Establishing the precise specification and initiation of any necessary actions in the IETF is deferred to the next SC6 meeting. This will not be recorded in CD2.
18	GB	6.2.1		te	Are these access methods the right ones? If we use a URL, perhaps we don't need any restriction? How will these be extended in the future? The last part of 6.2.1 appears to be obscure	Discuss and perhaps clarify?	**Noted.** The PE will produce clarifying text.
19	GB	6.2.2		te	The XSD specification of this XML file (and perhaps	Develop the XSD and ASN.1 specifications	**Noted.** A contribution to the

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					also an ASN.1 specification) is needed.		next meeting on the form of the XML file (for use in implementations) is expected.
20	GB	New 6bis		te	There is a lot of text based on experimental implementations and demonstrations on use of DNAME and CNAME records and e-mails in 12D documents.	This text should be inserted (after further discussion) as 6bis	**Accepted.** See No.3.
21	GB	New 6ter		te	Add new clause on security matters.	Discuss the location of the trust anchor for the OID root (the IAB – not yet available), the ICANN Repository, of the OID Repository. (Text will be needed as the result of the discussion.) (Detailed) text, following implementation, is also needed on the handling of the KEY records in the DNS zone file and in its parent (see DNSSEC) (It may be that detailed clause references to clauses in DNSSEC will be sufficient.) We need to determine what is mandatory, and also to discuss encryption (see GB 5). Discuss.	**Noted.** DNSSEC is optional and encryption is not needed. See No.5.
22	GB	7	Figure 5	ed	Do we really need the abbreviation "ORC"? If so it needs to be added to clause 4. Some of the servers labelled "ORS" are surely just DNS servers?	Discuss avoiding the abbreviation "ORC" Call any DNS servers "DNS servers", not "ORS servers"?	**Accepted.** See No.6. ORS client and ORS server will be used.
23	GB	7	Figures 4 and 5	te	These figures really need a little more explanatory text	Develop text in Geneva.	**Accepted.** See No.3.
24	GB	8		te	Some text has been proposed for addition to this clause. It is probably not sufficient!	Review and accept pro-tem.	**Generally Accepted.** PE will complete table x from the UK and add in Clause 8.
25	GB	9		ed	This is probably better merged into the proposed new	Do security overview earlier, and expand the text.	**Accepted.** See No3 and No.5.

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					clause before clause 7		
26	GB	New 10		te	The UK believes that a substantial new Clause 10 is needed to cover the operation of the DNS OID RA	Some headings and some outline text is provided in Attachment B, but this is not complete and needs expansion.	**Partially Agreed.** The meeting agreed to delete many of the clauses in 10.2.2, 10.2.3, 10.3, 10.4 and 10.5. PE will revise and renumber remaining text as necessary
27	CN	all	all	ge	The CN is voting DISAPPROVE WITH COMMENTS on CD1. If the proposed new text is adequately addressed, the CN vote will change to APPROVE. Nonetheless, the CN believes that there should be a second CD ballot.		**Noted.** The CN vote changed to APPROVE.
28	CN	8	1	ge	In order to ensure the ORS operating successfully, it should take some measures. CN suggests there should be some discussion about the number of mirror root servers.		**Noted.** This comment is understood to request that the Recommendation | International Standard contain text reflecting that there should be secondary servers for the primary DNS server containing the OID root zone files. In discussion it was felt that this depends on issues France Telecom Orange has raised in C167 on the expected load and need for reliability of the partial OID-DNS mirror. This depends on the area of application. C167 requests an informative annex discussing this area. The meeting felt that when such an annex is

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							produced, text referring to the number of secondary DNS servers could appropriately be included.
29	CN	Add Clause 10		ge	CN suggests adding clause 10 to define the OID Resolution System's administration. The content mainly involves the relevant OID-tree nodes' Registration Administration Authority, OID Resolution System's maintain and relevant charges etc.	Add clause 10 The administration of the OID Resolution System.	**Noted.** There was discussion of this (See No.26). It was agreed here that the information concerning this matters would be better placed in a separate document. China agreed to withdraw this comment on the understanding that these matters would be resolved in any specification of the requirements on the HLZF Manager.
30	CN	Add Clause		ge	CN suggests adding clause 11 to define the OID Resolution System's implementing. The implementing should include the general and the specific OID resolution process implementing.	Add clause 11 The implementing of the OID Resolution System.	**Partially Accepted.** Detailed DNS zone file configuration will be specified in Clause 7. See No.3. However, text for application-specific process implementation is not considered necessary.
31	CN	1	1	te	The last sentence is not specific.	The OID Resolution System provides information associated with a given OID through resolution process.	**Accepted.**
32	CN	1	2	te	The last sentence is not specific.	The general OID resolution process completes the DNS-based protocol resolution.	**Generally accepted.** PE will add more clear text to explain general OID resolution process.
33	CN	3.2	all	ed	Most of the definitions' first letters are small ones.	Capitalize the first letters of all the definitions.	**Accepted.** Capitalize the

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							terms and definition in accordance to appendix II of annex A of ITU-T A.23.
34	CN	5		te	After first paragraph, insert a paragraph defining the content in ORS.	Insert a second paragraph. A ORS may have metadata describing the OID for STEP 1, which could be access information, child nodes information, the canonical form of the IRI, or the OID-associated specific information.	**Generally accepted.** PE will add clearer text to explain STEP 1.
35	CN	5.1	Second paragraph	te	If a ORS has the information for STEP 1 OID, then STEP 2 should return the information associated the OID. In this case, there should be no STEP 3 and STEP 4.	Change "The associated information related to an object identified by the OID in STEP 2 in Figure 1 could be access information (see 6.62.21), child nodes information or the canonical form of the OID-IRI." To "The associated information related to an object identified by the OID in STEP 2 in Figure 1 could be access information (see 6.62.21), child nodes information, the canonical form of the OID-IRI, or the OID-associated specific information."	**Generally accepted.** PE will add clearer text to explain STEP 1 and STEP 3.

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