Title: Disposition of Comments on DIS 10747

Source: Project Editor (C. A. Kunzinger, USA)

Project: 1.06.41.05

References: 1) ISO/IEC JTC1/SC6 N 8118, *Table of Replies (Summary of Voting) on ISO/IEC DIS 10747- Information Technology - Telecommunications and Information Exchange Between Systems - Protocol for exchange of inter-domain routeing information among intermediate systems to support forwarding of ISO 8473 PDUs*

2) London Temporary Document 2L8, Part 7, Minutes of the Routeing Meeting

In accordance with the instructions given in SC6 N8118, the project editor has prepared the attached Disposition of Comments report for DIS 10747 (SC6 N6833). Unless otherwise noted, all clause numbers used in this Disposition of Comments report refer to the clauses of the revised text rather than to the clauses of DIS 10747. The revised text is contained in document SC6 N8206.

There were 20 votes of APPROVAL, 2 votes of DISAPPROVAL, and 3 ABSTENTIONS. The 2 ″NO″ votes were submitted by the US and UK national bodies. At the February 1993 meeting of SC6/WG2, the final text of the US ballot comments was available, and the UK submitted several expert papers that outlined its expected formal ballot comments. The routeing experts in attendance discussed the substantive area of concern and agreed in principle on acceptable resolutions for all major issues.

The editor has produced the revised text in a manner consistent with the London discussions. Since no additional NO votes were received from any other National Body, the editor believes that the revised text in SC6 N8206 satisfies all major technical concerns upon which the NO votes were predicated.

Resolution of UK Comments

The character '1' is used as a revision marker for the text generated in response to comments from the United Kingdom.

1. **UK 1, Public Access BISs:**

   Support for public access BISs has been added to IDRP as outlined in comment UK1. UK 2.1 also notes that it would be useful to allow a BIS to not ignore an OPEN PDU that is received while it is in the CLOSED state.

   The specific actions taken were as follows:

   - The ability for a BIS to react to an OPEN PDU that is received while the FSM is in the CLOSED state has been accommodated in the resolution of US comment 25, which proposed an alternative means to provide equivalent functionality. The principal difference was that the US suggested that this function should be enabled based upon the value of a Boolean managed object, **ListenForOpen**. Since US and UK experts agreed in London to adopt the methodology outlined in US 25, the text suggested by UK 2.2.1 was modified slightly to account for **ListenForOpen**, and the modified text now appears as item "d" in clause 7.6.1.1.
   - The text suggested in UK 2.2.2 appears in the fourth paragraph of clause 7.5.
   - The new notification **connectRequestBISUnknown** and the revised specification for the existing notification **PacketBomb**, as requested in UK 2.2.3, appear in clause 11.2. The suggested text for the notification **connectionRequested** was modified to account for the managed object **ListenForOpen**, and this text also appears in clause 11.2.
   - No action was taken with regard to UK 2.2.4, which asked that additional text be added to clause 11.6 of DIS 19747. The resolution of UK comment 7.1 resulted in deletion of the "Notifications Definitions" clause of the DIS text, hence rendering UK 2.2.4 moot. All notifications now appear in clause 11.2 of the revised text.

2. **UK 3, BIS-BIS Frozen Timer:**

   This comment suggests that the imposition of an immutable time interval of 150 seconds between the end of one BIS-BIS connection and the establishment of a subsequent one is not necessary, and in some cases could cause problems. It notes that many problems can be avoided by other less drastic means, such as not requiring a BIS to always use zero as its initial sequence number when a connection is started up.

   During the discussions in London, the US noted that several of its comments addressed the same general area of concern: for example, US 4 discusses a method to support a rapid connection close (thus making it possible to avoid a fixed wait of 150 seconds), and US 8 notes that it should be permissible to increment sequence numbers monotonically between successive BIS-BIS connections, as an alternative to the currently specified of the DIS text which required waiting 150 seconds and then restarting with an initial value of zero.

   The US noted in London that its comment 8 would also handle the case where a BIS was re-booted between successive BIS-BIS connections, and no longer knew the last-used sequence number in the previous BIS-BIS connection.

   Considering the comments from both the US and the UK, the routing experts who met in London suggested that the following course of action would address all of these issues:

   - Retain the **CloseWaitDelay** timer in IDRP
   - Require that this timer must expire before an initial BIS-BIS connection is established with a peer BIS

- For subsequent BIS-BIS connections, there are two options: allow the timer to expire and use any sequence number, or use a greater-valued sequence number without waiting for the timer to expire.

Since the suggested US text for its comments 4 and 8 satisfied the concerns expressed in UK 3, this comment was resolved by adopting the approaches outlined in US 4 and US 8.

3. **UK 4 and 5, CAPACITY:**

As suggested in UK 4, CAPACITY has been changed to a mandatory well-known path attribute and its semantics have been clarified. The change suggested in UK 4.2 appears in 6.3.1.15. The editor made similar changes in Table 3 and clause 7.12.15, and removed CAPACITY from clauses 7.11.2 and 7.11.3, which discuss distinguishing attributes.

The new text suggested in UK 5.2 has been added to 7.11.15 in order to clarify the semantics of this attribute.

4. **UK 6, Continuity of Service:**

This comment argues that it should not be necessary to tear down a BIS-BIS connection when and if sequence numbers wrap around. Since sequence number wrap-around is a well-behaved situation, this comment argues that IDRP should provide explicit text for handling this situation.

The changes and replacement text proposed in UK 6.2 have been incorporated into the text of clause 7.7.4.

5. **UK 7, Comments on GDMO:**

The UK comments on GDMO were resolved as follows:

- Comment 1 was resolved by removing the troublesome sentence ″In addition to the parameters specified in ISO 10733...″ from the descriptions of all notifications in clause 11.2. It has been replaced with the boilerplate text copied from ISO 10733, namely (see, for example, the text for the *errorsBISPDUsent*): ″The significancesubparameter of each item...in the AdditionalInformation field, as follows″.

  Since notifications have been mapped to ″DMI:communicationsAlarm″ amd ″GMI:communicationsInformation″, clause 11.6 of the DIS text is no longer needed, and it has been deleted in its entirety from the revised text.

  The editor cross-checked clause 11.5 against notifications listed in ″idrpConfigPkg-P, supplied any missing definitions for the notification parameters, and corrected any misspelled parameter names:
  - Definitions added: notificationRemoteBISNET, notificationSourceBISNET, notificationSourceBISrdi, notificationSourceBISrdc.
  - Syntax errors corrected: in the DIS text, the string ″notification″ had been omitted from the names of several parameters. The editor has corrected the names, as needed (for example, ″bisPDUerrorinfo″ in the DIS clause 11.7 has been changed to ″notificationBISPDUerrorinfo″ in clause 11.5 of the revised text.)
  - Parameters removed: remoteBISActionReply, remoteBISNetEventInfo, and stateEventInfo (from 11.7 of DIS text) have been deleted, as they were not referenced anywhere.
- Comment 2 was resolved by using the GMI:activate and GMI:deactivate actions rather than the DIS text′s StartEvent and StopEvent. Appropriate text changes were made throughout the document in all place where StartEvent or StopEvent occurred.
- Comment 3 was resolved by using GMI:counters and DMI:state, rather than the IDRP-specific items that appeared in the DIS text.
- To resolve comment 4,the editor produced the requested figure, which appears as Figure 9.

- To resolve comment 5, the editor has observed the naming conventions and the alphabetical ordering in the revised text.
- To resolve comment 6, the editor has used the abbreviations ″GMI″ and ″DMI″ in all appropriate places.
- To resolve comments 7 and 8, the editor included entries in the document index for all managed objects.
- To resolve comment 9,**idrpConfigID** has been defined within ISO 10747 as an attribute of **idrpConfig**; it is no longer given an external reference.
- Comment 10 appeared to be an open-ended question. The editor took no action on this item. Note, however, that if this comment referred to the fact that some attributes needed to have initial values defined upon their creation, this has been accommodated (see below).
- To resolve comment 11, the GMI:nonWrapping64BitCounter is now used in place of the IDRP.NonWrappingCounter.
- To resolve comment 12, the GMI:timer is now used.
- To resolve comment 13, the requested changes to the ASN.1 notation have been made.

In reviewing the GDMO in the DIS text, the editor also made the following changes:

- The packages idrpConfigPkg-P and adjacentBISPkg-P have been broken out and defined separately in clause 11.3, instead of being defined ″in-line″, as they were in the DIS text.
- A new clause 11.6 was added to define the behavior ″supplyOnCreate″.
- As discussed in London, default values have been specified for attributes bisRDC, bisRDI, lastAckRecv, lastAckSent, lastSeqNoSent, and lastSeqNoRecv. Also, initial value deirivation rules (″supplyOnCreate″) have been provided for attributes idrpConfigID and authenticationTypeCode
- In the DIS text, clause 11.7, the parameters all had REGISTERED AS constructions that used ″poi″ (package) rather than ″proi″ (parameter). Since revised clause 11.5 deals with parameters, the designation ″proi″ has been used.
- The editor checked clause 11 for inconsistent spellings, multiple definitions, etc., and made corrections, as needed.

6. **UK 8, Source and Destination QOS Attributes:**

   This comment argues that Source Specific Security and Destination Specific Security are simply alternative specific methods for identifying the responsible QOS authority, and that they should be replaced by a single generic path attribute, LOCALLY DEFINED QOS.

   The principal changes suggested by the UK have been handled as follows:

   - The changes in A.4 appear in clause 6.3.1.11.
   - DESTINATION SPECIFIC QOS has been deleted throughout the text, as requested in A.5 and A.11.
   - The text suggested in A.10 appears in clause 7.12.11.

7. **UK 9, Source and Destination Security:**

   Using arguments similar to those for the Source and Destination Specific QOS parameters, this comment argues that IDRP can handle all aspects of security with a single path attribute, SECURITY, which will identify the relevant Security Authority and provide the requisite security related information.

   IDRP has been revised to provide only a single SECURITY path attribute. This new attribute provides all functions that were previously available in the SOURCE SPECIFIC SECURITY attribute and the DESTINATION SPECIFIC attribute, and it also adds support for ISO 8473′s globally unique security parameter. In London, US experts agreed that the treatment of globally unique security proposed by the UK will satisfy the concerns expressed in US comment 1.

The principal changes suggested by the UK have been handled as follows:

- All existing text throughout the document that refers to either SOURCE SPECIFIC SECURITY or DESTINATION SPECIFIC SECURITY has been deleted.
- The new PDU description proposed in A.6 now appears as clause 6.3.1.14. In reviewing the proposed text, the editor did not incorporate the second and third sentences ("This field may be set to zero...the same Security Authority.") proposed for "1) Security Registration ID Length". Since a Security Registration ID must always be present and since there no longer are any specific fields to carry NSAPs, these two sentences seem to be unnecessary.
- The new attribute description given in A.12 now appears in clause 7.12.14.

8. **UK 10, Priority:**

   This comment requests that it be permissible for a Loc-RIB (and hence a FIB) to contain more than one route to the same destination if those routes have different priority levels. For consistency, the UK notes that such multiple routes would need to be aggregated before advertisement. The UK outlined this approach to the experts present in the London SC6/WG2 meeting, and it was accepted.

   The text changes are as follows: the text in A.14 appears in clause 7.16.2, the text in A.16 appears in 7.16.3, and the text in A.16 appears in 7.18.2.3.

9. **UK 11, Efficient Secure Routeing:**

   This comment notes that the SECURITY path attribute can also be handled similarly to the methods outlined in UK 10 for handling PRIORITY. This approach was discussed and agreed to during the London SC6/WG2 meeting.

   The text changes are as follows: the text in A.14 appears in clause 7.16.2, and the text in A.16 appears in 7.18.2.3.

10. **UK 12, Forwarding Process:**

    This comment notes that a BIS must understand the underlying QOS policy (or Security Policy) if it is to correctly forward NPDUs involving these policies. It also notes that correct aggregation of such attributes also depends upon knowledge of the underlying policy semantics.

    To clarify these points, the UK suggested text to amend the Forwarding Process, in its comments A.17, A.18, and A.19. The text contained in these comments has been incorporated into the revised text.

    In reviewing the suggested text of A.18, the editor noticed that it did not address the case of "globally unique security". Hence, the editor added the appropriate text to that suggested by the UK: namely, that bit pattern '11' identifies ISO 8473's globally unique security parameter.

    To clarify that the matching procedure will in fact terminate, the editor added informative Note 33 at the very end of 8.3.

11. **UK Annex A, Editorial Changes**

    The editor included all of the text proposed in Annex A. Many of the individual items have been discussed in the resolution of the numbered UK comments. All others have also been included.

    The editor made a minor change to the text suggested in A.3 for "SECURITY": since the new SECURITY path attribute does not carry an explicit field for NSAPs, the words "...shall comprise either the NSAP Address Prefix or the Security Registration Identifier, or both,..." have been changed to "..shall contain the Security Registration Identifier..."

In comment A.4, the instructions to "delete the last sentence of the NSAP (address) prefix length" appear to be incorrect, since the given rationale does not apply to this sentence. The editor believes that the offending sentence is actually the last sentence in DIS 10747's text for "NSAP prefix", not for "NSAP prefix length". Hence, he has deleted that sentence, namely "If an ISO 8473 NPDU's source NSAP address matches the NSAP prefix, then it will be routed according to the indicated QOS value."

The first item in A.16 asks for text to be inserted "after the third paragraph", but clause 7.18.2.3 consists of only one paragraph and a rather large list. Hence, the editor placed the suggested text in the descriptions of the SECURITY attribute and the LOCALLY DEFINED QOS attribute instead.

Resolution of US Comments

The character '2' is used as a revision marker in the body of the text for changes made in response to commetns from the United States.

1. **US 1, Globally Unique Security:**

   This comment asked that IDRP be extended to support the ISO 8473 globally unique security parameter. The UK also proposed a similar comment that not only supported globally unique security, but also proposed a single path attribute that would handle Globally Unique, Source Address Specific, and Destination Address Specific Security. When discussed in London, US experts agreed that adoption of the UK proposal (Comment UK 9) would satisfy US comment 1.

2. **US 2, Carriage of Multiple Routes in an UPDATE PDU:**

   This comment proposed that information exchange could proceed more efficiently if a single UPDATE PDU were permitted to carry information about several feasible routes. US experts presented an outline of the proposed methods to the routeing experts during the London SC6/WG2 meeting, at which point it was agreed to accept this comment.

   The new UPDATE PDU format will:

   - Allow a single UPDATE PDU to carry multiple feasible routes, which are delimited by ROUTE_SEPARATOR attributes within the PDU.
   - Associate all non-distinguishing path attributes in an UPDATE PDU with each feasible route advertised in that PDU.
   - Associate distinguishing attributes occurring between the ROUTE SEPARATORS to be associated with that single route only.
   - Require a BIS receiving an UPDATE PDU to expand it into all of its constituent routes.

   The detailed text changes proposed by the US (items "b" through "i") have been incorporated into the revised text. Because clause numbering has changed, the following gives a cross reference between the suggested US text changes (pages 3-5 of US comments) and the clauses of the revised text:

   - item "a": DIS text, page 8, contained no text on "LOCAL_PREF". No action taken on this comment.
   - item "b": Text is in 5.8
   - item "c": Text is in 6.3
   - item "d": Text is in 6.3.1.1
   - item "e": Text is in 7.12.1
   - item "f": Deletions have been made in note at the end of 7.12.1
   - item "g": The suggested text for old item "d" ("When an UPDATE PDU is...for each route are:") appears, slightly modified, as the first two paragraphs of 7.14. The suggested text for old item "d)2" appears as the introductory sentence of new item "b" of 7.14
   - item "h": Text is in 7.15.1. For consistency, the editor changed the wording in the second sentence ("For routes advertised to BISs located in the same routeing domain as the local BIS...") to "In UPDATE PDUs transmitted to BISs that are located in the same routeing domain as the local BIS...").
   - item "i": Text appears in 7.20.3h.

3. **US 3, Forwarding for Type 2 & 3 Functions:**

   This comment argued that the IDRP treatment of 8473 parameters should be consistent with the types of function as defined in ISO 8473. A related concern was also embodied in UK comment 10, which noted that a BIS needed to understand the semantics of an attribute if it is to route correctly based upon it. During the London meeting, routeing experts discussed these issues, and accepted the US comment 3 in principle. The UK, however, described a more detailed procedure for the process of matching a RIB-Att with the parameters in the 8373 NPDUs, and also described an algorithmic process for selecting a forwarding base in cases where an exact match is not obtained.

Thus, this comment was resolved by combining inputs from both the US and UK, as follows:

a. The matching process (clause 8.3) is based on text provided by the UK in its Annexes A.18 and A.19. (This text accommodates the new path attributes of SECURITY and LOCALLY DEFINED QOS.)
b. Reference is made to the new matching process in item ″b)2″. That is, the detailed US-suggested text on page 6 of the US comments has not been used, since the UK text in 8.3 is more complete and is consistent with the ISO 8473 function type classifications.
c. The first sentence of the last paragraph of US-proposed text appears as the last sentence of 8.3. The reference in this sentence to a ″fallback FIB″ has been deleted, since this concept is no longer needed after adoption of the UK text for clause 8.3. The last sentence of the last paragraph of US-proposed text has not been used, since the revised text of 8.3, revised item 2)ii of clause 8.3 already describes the conditions under which a PDU will be discarded.

4. **US 4, Rapid Connection Close:**

   This comment notes, as does UK 2, that the requirement to always wait for a 150 second timer before closing a connection is overly restrictive. It suggests that a method should be provided so that in certain instances, the connection can be closed earlier. The method suggested is to provide an acknowledgement function to the process of closing a connection: that is, a BIS that receives a CEASE while it is in the ESTABLISHED state will acknowledge by sending back a CEASE PDU to its peer. And a BIS in the CLOSE_WAIT state that receives a CEASE from its peer will immediately enter the CLOSED state, even if the CloseWaitDelay timer has not expired.

   As noted in the resolution of UK 3, it was decided in London to accept the US ″rapid close″ and to retain the CloseWaitDelay timer. The changes proposed by the US have all been incorporated into the revised text.

5. **US 5, Validation Mechanisms:**

   This comment requested that a ″secret text″ option be added as a third allowable authentication method. The text suggested in US 5, item ″h″ outlines the new method; it appears in in 7.7.3 as Authentication Type 3. are also incorporated in the revised text.

   The second concern in this comment was that Authentication Type 2 was overly restrictive because it required the use of the MD4 algorithm. The suggested US replacement text (item ″e″) appears in 7.7.2. Much of the material in DIS clause 7.9 has been moved from the body of the text into a new informative Annex D in the revised document, as requested in item ″f″.

   The other incidental editorial changes outlined in US 5 have also ms ″a″- through ″d″) been accepted and incorporated into the revised text.

6. **US 6:** The proposed text appears in 6.3.2.

7. **US 7:** The proposed text appears in 7.3, item ″d″, and 11.6.

8. **US 8, Sequence Numbers:**

   The US-proposed rules for re-use of the sequence number space were discussed in London, and accepted by the experts. The text changes appear in 7.7.4a and 7.7.4c.

   Noting that the US approach relies on knowledge of the last sequence nubmer sent in the prior BIS-BIS connection, the editor added the appropriate managed object (**lastPriorSeqNo**), modelling the text after that which had been proposed in UK 3. He also added text to 7.6.2to note that this managed object should be updated when a connection is closed.

9. **US 9:** The suggested clarifications of the contents of the header fields of the OPEN PDU appear in 7.6.1.1b and 7.6.1.2e.

10. **US 10:** This comment notes that the process of opening a BIS-BIS connection can be made more efficient by allowing information-bearing PDUs (UPDATE or RIB REFRESH) to be sent in reply to a received OPEN PDU while the BIS FSM is in the OPEN-SENT or OPEN-RCVD state. Currently, the DIS text only allowed such responses to be a KEEPALIVE PDU, which conveys no routeing information.

    The changes suggested by ite″a″ of this comment appear in 7.6.1.2f and 7.6.1.3g, and the FSM in Table 2 has been modified accordingly.

11. **US 11:** This comment recommends that the HoldTimer should apply only in the ESTABLISHED state, and that timeouts in the OPEN-RVCD state can be handled by bounding the number of allowed retransmissions of the OPEN PDU.

    The FSM was modified as requested, the new proposed text appears in 7.6.1.3m, and Note 14 of the DIS text has been moved to the very end of 7.6.1.3, immediately after item ″m″.

    For completeness, the editor updated the description of the Hold Time field of the OPEN PDU (clause 6.2) and the description of the associated error handling (clause 7.20.5) to reflect that this timer applies only when FSM for a BIS-BIS connection is in the the ESTABLSIHED state.

12. **US 12:** The text to provide checking on the ordering of RDCs within the RD_PATH attribute appear as the third paragraph of item ″b″ in 7.12.3.3

13. **US 13:** The editorial clarifications on the handling of optional attributes have been incorporated into the revised text, using the US-proposed language.

14. **US 14:** The additional informative text proposed in this comment appears as the third paragraph of 7.16, and Note 26 of the DIS text has been deleted.

15. **US 15, Overlapping Routes:**

    This comment was presented and discussed at the London SC6/WG2 meeting by the US experts. It noted that the restrictions given in the DIS text for the advertisement of overlapping routes were correct, but were overly restrictive. That is, they somewhat arbitrarily prevented a BIS from advertising some legitimate routes. The US presented proposed text which would allow all legitimate routes to be advertised.

    The proposed text has been incorporated into the revised text, as the last two paragraphs of 7.16.3.1.

16. **US 16, 17, 18, Error Checking:**

    This series of comments recommended that additional information be reported to aid in problem diagnosis. The text proposed by the US appears in the following clauses: 7.21.2c, 7.21.3g, 7.21.3o, 7.21.3p, and 7.21.3q.

17. **US 19:** The description of the encapsulation process has been expanded according to the proposed text, which appears in 8.4, item ″b)1″.

18. **US 20:** The attribute **maximumPDUSize** from the DIS text has been deleted. It has been replaced by two attributes, **maxPUDLocal** and **maxPDUPeer**, which indicate the maximum-sized PDU that a BIS can send or receive, respectively.

19. **US 21:** The changes suggested by the US were incorporated, but were modified by the editor to reflect the new SECURITY and LOCALLY DEFINED QOS attributes. It also reflects that CAPACITY is no longer a distinguishing attribute.

    The changes appear in clause 11.6.

20. **US 22:** Clause 12.2.2 of the DIS text has been deleted.

21. **US 23:** Annex H of the DIS text has been rewritten to reflect the current content of IDRP. The revised annex now appears as Annex K in the revised text.

22. **US 24:** This comment asked that ″dictionary ordering″ provides a more efficient implementation than numerical ordering. The text proposed in this comment appears in 7.12.3.1.a)2 and 7.12.3.2.a)1)ii.

23. **US 25, Listening for OPEN PDU:**

    This comment notes that the process of establishing a BIS-BIS connection can be streamlined if a BIS is allowed to react to OPEN PDUs received while its FSM is in the CLOSED state. For consistency with the DIS text, it was proposed that this new function be optional, and that it be gated by the value of a new managed object, **ListenForOPEN**. The solution proposed in US 25 also satisfies a similar concern raised by the UK in their comment UK 1 (Public Access BIS).

    The proposed text changes suggested by the US have been adopted, and appear in 7.6.1.1, items ″c″ and ″d″. The FSM was updated accordingly.

24. **US 26:** The proposed clarification appears in 7.18.2.2.

25. **US 27:** This extensive set of editorial rearrangements has been executed. The individual text changes requested in its items ″b″ through ″f″ appear as follows:

    - ″b″: in 7.5, third paragraph
    - ″c″: in 7.6.1, second paragraph
    - ″d″: in 7.14
    - ″e″: in 7.7.5c, first, third, and fourth paragraphs
    - ″f″: in Table 2, Notes ″d″ and ″e″.

26. **US 28:** The requested editorial clarifications appear in 6.2.

27. **US 29:** Figure 5 has been updated to include reflect the current contents of the IDRP UPDATE PDU.

28. **US 30:** The requested note appears in 6.3.1 as Note 4.

29. **US 31:** Text appears in 6.3.1.3, first sentence.

30. **US 32:** Requested text appears in 7.7.5, item ″a″, last sentence.

31. **US 33:** The requested clarifying text appears in 7.7.5, item ″b″, third sentence.

32. **US 34:** The items ″a″, ″b″, and ″c″ in clause 7.6.2 of the DIS text have been rendered obsolete by several of the changes made in response to other ballot comments. Since the normative text now appears elsewhere, the editor has chosen to delete these three items and to add a reference in the first sentence to Table 2, which reflects all changes made in response to ballot comments.

    The new sentence (″When the connection enters...″) appears as the second paragraph of 7.6.2.

33. **US 35:** The proposed clarification appears in the third paragraph of 7.10.1.

34. **US 36:** Correction appears in 7.13.

35. **US 37:** The requested clarification appears in item ″b)2″ of 7.14.

36. **US 38:** The requested clarification appears in item ″b)5″ of 7.14.
37. **US 39:** Language has been added to 7.15.1 to clarify that the advertising BIS is the one that computes the degree of preference.
38. **US 40:** Clarification appears in 7.18.2.1, first sentence.
39. **US 41:** The cross reference in 7.5 has been corrected.
40. **US 42:** Information on length of IDRP ERROR and CEASE PDUs appears as items ″e″ and ″f″ in the second paragraph on 7.20.1.
41. **US 43:**Cross references in 7.20.3, item ″n″ have been corrected.
42. **US 44:** Requested name changes have been made to the object identifiers in 11 and its subclauses.
43. **US 45:** ″aoi″ has been changed to ″atoi″ in 11.6
44. **US 46:** ″nonWrapping Counter″ has been deleted, so comment is moot.
45. **US 47:** Editorial corrections have been made.
46. **US 48:** Editorail correction has been made.
47. **US 49:** Annex K of the DIS text has been deleted.
48. **US 50:** Editorial corrections have been made.

Resolution of Polish Comment

The character '3' is used as a revision marker to show changes made in response to the comment from Poland.

1. The reference has been corrected.

Other Editor's Actions

The character '4' is used to mark revisions made by the editor in the absence of any specific national body comment.

In the process of revising the text, the editor made a number of minor editorial and formatting changes. The principal ones are summarized below:

1. In the DIS text, clause 6.3 ran for 7.5 pages, and consisted of a number of nested lists. To make it easier to refer to subsections of this clause (for example, to the encoding of a single path attribute), the editor has provided subclause numbering for each of the path attributes individually. This allows clause references in the Conformance and PICS sections to be stated more precisely.
2. The editor added more items to the document's index, and expanded the references to existing items.
3. The informative footnotes on pages vi, 1, 6, and 61 of the DIS text have been moved into the body of the text, as informative material. This was done to make common formatting possible between the ISO standard and the character-based ASCII file that will be provided to the IETF as part of the ISO/IETF ongoing cooperation.
4. The editor checked the FSM in Table 2 for consistency with the text changes used to resolve ballot comments, and made corrections as necessary to match the text.
5. It was brought to the editor's attention that the following timers apply individually to each connection to an adjacent BIS, and should therefore be moved from the "idrpConfigPkg-P" package into the "adjacentBISPkg-P" package: closeWaitDelayTimer, holdTimer, keepAliveTimer, minRouteAdvetisementTimer. This has been done.
6. It was brought to the editor's attention that the there was no text stating that the error handling procedures of clause 7.20ff apply inidvidually to each FSM within the BIS. The editor added an informative sentence to 7.20 that notes this fact.
7. Any spelling, grammar, word-processor artifacts, and punctuation errors found in the course of revising the document were corrected.