**IEEE-NSF Joint Standard for Servers (1680.4)**

**Voting Guidance Document**

Guidance on Repair/Service and End-of-Life Criterion for voting and commenting

**Key Dates and Voting**

BALLOT OPENS: 1-17-2017  
BALLOT CLOSES: 2-16-2017.  
No votes and/or comments will be accepted after 11:59 p.m. Eastern Time on the close date. Make sure you review the document, cast your vote, and submit your comments before the closing date/time.

RECIRCULATION: As this is a recirculation, your previous vote carries over to this round of voting, thus if you do not wish to change your vote, you do not need to. However, you may should update your comments to reflect the changes in the revised standard.

This guidance document covers the relevant criteria that impacts repair/reuse service providers and end of life processing in sections 9, 10 and 11 of the draft standard available for download during balloting. Listed Pages and Line Numbers are from the “IEEE-NSF Joint Server Standard 170117 for ballot redline-strikeout.pdf” that is available for download from the IEEE myProject portal.

The following pages contain guidance from experts at repair.org, Silicon Valley Toxics Coalition, iFixit, Basel Action Network, and others. It is intended to provide language that can be used and modified as part of your individual comments that you submit during your individual balloting. You are encouraged to review the criteria, these comments and draw your own conclusion when voting on the standard and, if you vote to disapprove the standard, provide language that you can modify as part of the required commenting when voting.

**Overall Guidance from Repair.org**

The IEEE 1680.4 Standard for Environmental Leadership Assessment of Servers revision does not show environmental or sustainability leadership, it reflects legal requirements and status quo designs and offerings by the manufacturers. From the standpoint of repair, it does not move or incent a more reusable or repairable design and does not go far enough, as written, on sharing the necessary information for enabling third-party repair. Furthermore, the end-of-life criteria in this draft standard contains a number of troubling issues.

**Repair.org Voting Recommendation:** Repair.org recommends a **negative/no vote** on the standard overall. Comments on no votes must be provided (see the following pages for details of comments that repair.org members should review and consider when voting on the standard).

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**Relevant criteria that impacts repair/reuse service providers and**

**end of life processing in sections 9, 10 and 11 of the draft standard**

**available for download during balloting**

Section 9 – Design for repair, reuse and recycling

Relevant Criteria:

**9.1.1 Required - Design for repair, reuse and recycling**

**9.1.2 Required - Design for plastics recycling**

**9.1.3 Optional - Further design for plastics recycling**

**9.1.4 Required - Product recyclability calculation and minimum 90% recyclability rate**

**9.2.1 Required - Information and reporting in preparation for reuse and recycling**

**9.2.2 Optional – Further information and reporting in preparation for reuse and recycling**

**9.2.3 Optional - Product marked to identify components and materials requiring selective treatment**

**9.2.4 Optional - Information and reporting on disk drive magnet type and location**

**9.2.5 Optional - Functionality testing software tools**

Section 10 – Product Longevity

Relevant Criteria:

**10.1.1 Required - Replacement components availability**

Section 11 – Responsible end-of-life management

Relevant Criteria:

**11.1.1 Required – Provision of product take-back service (corporate)**

**11.1.2 Optional -Take-back service for de-installed servers (corporate)**

**11.2.1 Required - End-of-life processing requirements (corporate)**

**11.2.2 Required - Trans-boundary movements (corporate)**

**11.2.3 Optional - Publicly available record of the reuse/recycling achievement (corporate)**

**Section 9 – Design for repair, reuse and recycling**

**9.1.1 Required - Design for repair, reuse and recycling**

*Guidance:*  This criterion is adequate

*Balloting Comment:* n/a

**9.1.2 Required - Design for plastics recycling**

*Guidance:* This criterion is adequate.

*Balloting Comment*: n/a

**9.1.3 Optional - Further design for plastics recycling**

*Guidance:* Criteria should be required if the standard is to be providing environmental design guidance for servers that enables higher plastic recycling than currently being done – there should be no status-quo optional points in the standard and this is status quo.

*Location*: Page 61, Subclause 9.1.3, Line 41

*Comment:* This criterion should not be optional, should be required.

*Proposed Change:* Change Optional to Required.

**9.1.4 Required - Product recyclability calculation and minimum 90% recyclability rate**

*Guidance:* This criterion is not currently applicable to repairable/reusable products. The listed methodology of using IEC TR62635 for the calculation has become the industry standard however it is inadequate for inclusion of repair or reuse of products, only focusing on recycling of streams of materials from electronics.

*Location*: Page 62, Subclause 9.1.4, Line 29

*Comment:* This criteria does not impact/promote repair or reuse. This criterion should shift focus to percentage of product that is repairable/reusable rather than focus on end-of-life waste stream.

*Proposed Change:* Criterion is adequate as a recyclability calculation only.

**9.2.1 Required - Information and reporting in preparation for reuse and recycling**

*Guidance:* This criterion is reflecting legal requirements from the EU WEEE Directive, Article 15 but applies them world wide and is adequate.

*Balloting Comment:* N/A

**9.2.2 Optional – Further information and reporting in preparation for reuse and recycling**

*Guidance:* 9.2.2 address additional information beyond the requirements of Article 15 that should be shared and establish guidance on how and what format information should be shared. However, information supporting reuse and recycling should never be optional for a sustainability standard and no exemptions for safety or confidential business information should be allowed.

*Location*: Page 64, Subclause 9.2.2, Line 7

*Comment:* Table 9.1 provides an acceptable list of information requirements to be made publically available, however they all need to be done without exceptions to adequately support product reuse and recycling.

*Proposed Change:* Change optional to required.

**9.2.3 Optional - Product marked to identify components and materials requiring selective treatment**

*Guidance:* We should take a stand that information reporting should be done by manufacturers using consistent format/codes so that use of the information will be practical. Otherwise many different products will be marked differently.

*Location*: Page 67, Subclause 9.2.3, Lines 22-23

*Comment:* Remove the option for use of different codes and specify that only QR codes shall be used

*Proposed Change:* “~~either a~~ Quick Response (QR) code~~, or other code, at the choice of the manufacturer,~~ that is in common”

**9.2.4 Optional - Information and reporting on disk drive magnet type and location**

*Guidance:* This is an information only criterion and does not mandate any change to the product itself. It should be required by the manufacturer to do this.

*Location*: Page 68, Subclause 9.2.4, Line 2

*Comment:* As an informational criterion only requiring no design changes, this should be required to facilitate reuse and recycling.

*Proposed Change:* Change optional to required.

**9.2.5 Optional - Functionality testing software tools**

*Guidance:* To adequately support the reuse and repair of a product as broadly as possible, access to the proper testing tools is needed and should be made mandatory.

*Location*: Page 68, Subclause 9.2.5, Line 29

*Comment:* As a criterion requiring no design changes and to support broad reuse and repair of the product, access to proper testing tools is needed and should be mandatory.

*Proposed Change:* Change optional to required.

**Section 10 – Product Longevity**

**10.1.1 Required - Replacement components availability**

*Guidance:* This criterion is adequate

*Balloting Comment:* n/a

**Section 11 – Responsible end-of-service/end-of-life management**

**11.1.1 Required – Provision of product take-back service (corporate)**

*Guidance:* This criterion must pertain to all servers coming out of use from customers (“end-of-service” equipment) and must go to Initial Service Providers that meet requirements in section 11, and not just servers that have been determined to be “end-of-life” equipment destined for dismantling and disposal. (NOTE: The definition of ‘end-of-life’ does not include equipment destined for repair, refurbishment, and reuse, and therefore creates a massive loophole for all equipment that may be destined for triage for possible repair and reuse – a process that always generates waste, and should be subject to requirements in Qualified e-Recycling Standards.) The entire concept of providing a takeback service, from the start of EPEAT standards, has intended to provide responsible management of used equipment, including for repair and reuse of all equipment coming out of customers’ use. We must restore the words “end-of-service” in the title and text of this criterion, as well as the definition for this term in the glossary. This would restore the original scope of servers required to be responsibly and transparently managed, and get rid of the apparent conflict between the reference to ‘end-of-life’ equipment in the title and the references to reuse and refurbishment throughout the first paragraph of the criterion.

*Balloting Comment:* Restore the words “end-of-service” in the title and text of this criterion (page 70, lines 5 – 47, and page 71, lines 1 – 34), as well as the definition for “end-of-service” in the glossary.

**11.1.2 Optional -Take-back service for de-installed servers (corporate)**

*Guidance:* Page 71, Lines 36 – end of section. This optional criterion has two primary problems. Both problems arise in the first paragraph, which indicates that this criterion applies to “de-installed equipment and components, including non-registered products and products from other manufacturers”.

1. A plain reading of this would indicate that this criterion includes registered “de-installed equipment and components” (as well as non-registered ones). And yet all the other EOL criteria already pertain to registered products (de-installed and otherwise), and we should not give additional optional points for providing the same required services (11.2.1 and 11.2.2) or meeting lessor requirements (only ‘the management hierarchy…of 11.1.1) for the same registered products. In other words, this optional criterion should only cover non-registered products and those from other manufacturers, but not registered products.
2. This criterion uses the undefined term “de-installed equipment or components” as its umbrella term to identify what this optional criterion applies to, as opposed to the defined term ‘products’, which covers only computer servers. As written, this optional criterion could rightly be interpreted to give optional points to manufacturers that take back only de-installed laptops, mobile phones, or any other ‘equipment or components’. This was likely not the intent, and language should clearly restrict it to only computer servers.

*Balloting Comment:* In one solution for both problems, revise language (in every location in Lines 36 to end of section) so this optional criterion only pertains to “de-installed non-registered products and components, including products from other manufacturers” (but does not pertain to registered products or other types of undefined ‘equipment and components’). Also, “Manufacturer shall ensure that the products and components recovered under this criterion are managed in accordance…”

**11.2.1 Required - End-of-life processing requirements (corporate)**

There are a number of significant problems with this criterion.

1. *Guidance:* 11.2 in its entirety: This criterion must clearly pertain to end-of-service as well as end-of-life products, as indicated in the original title of section 11 (“Responsible end-of-service/end-of-life management”) and as clearly covered in criterion 11.1.1. Used equipment being tested and prepared for reuse generates waste, including bad parts that must be removed and replaced. Qualified Electronics Recycling Standards (QERS) referenced in this criterion (11.2.1) clearly include criteria for reuse, repair, and refurbishment. It is critical that this criterion clearly pertains to products at end-of-service, as well as end-of-life.

*Balloting comment:* 11.2, page 72:

* 1. Change title in line 32 to “End-of-Service and End-of-Life Management”;
  2. Change title in line 34 to “11.2.1 Required – End-of-Service and End-of-life processing requirements (corporate)”; and
  3. Change language in line 36 of opening paragraph to say “…are met for all end-of-service and end-of-life servers collected by the manufacturer (or their contractual agent) …”

1. *Guidance:* 11.2.1, 1), Page 72, lines 40-42: Although an attempt was made to address the following problems, the solution is not adequate, and furthermore only appears to cover ‘end of life’ servers and not ‘end of service’ servers. 11.2.1, 1) uses the term ‘end-of-life electronics processing’, which:
   1. Does not clearly require that a government-approved program must cover servers, and
   2. Does not clearly require that a government-approved program must cover servers destined for repair and reuse.

The way this is worded would allow government-approved programs for other types of equipment to suffice, without requiring that servers are included in such a government program. The intent here surely was that the government-approved programs must include the registered products, but this must be made explicit.

*Balloting comment:* 11.2.1, 1), Page 72, lines 40-42, change to the following: “A government-approved program for the collection and processing of end-of-service and end-of-life electronics, including servers, in which the manufacturer does not control the selection of initial service providers.”

1. *Guidance:* 11.2.1, 2) c), Page 73, lines 16 - 25: Even though adding a requirement for a certified management system is an improvement, 2 c) remains highly problematic because there are no rules or requirements whatsoever pertaining to the ‘competency’ of the conformity assessment body (CB) to conduct an audit to the QERS. In other words, even though “competency to conduct an audit to the QERS” is required in concept, none of the following are provided:
   1. No accreditation required of CBs to audit to a QERS and no associated rules or oversight they would have to meet pertaining to the QERS. Instead, CBs are only required to be accredited to either the general ISO 17021 standard for CB auditing to management system standards (not a QERS), or to ISO 17065, an ISO standard for product certification (which a QERS is NOT), an inappropriate option for CBs auditing to a QERS, which has nothing to do with product certification;
   2. In the absence of any QERS accreditation requirements for CBs, there are no substitute requirements for any of the following:
      1. No criteria defined for the competency of a third-party conformity assessment body to perform audits to a QERS;
      2. No requirement for who will determine the competency of any CB to audit to a QERS, and it should not be assumed that the MSE’s Conformity Decision Panel is qualified to determine competency of CBs to audit to QERSs.

*Balloting comment:* 11.2.1, 2) c), Page 73, lines 16 - 25: Delete option 2) c) for audits by conformity assessment bodies that are not accredited to audit to the respective QERS(s), and restore the 1680.2 and .3 language providing manufacturers with two alternatives:

a. An 18 month grace period for getting a certified ISP in place, or

b. The option to legally export the end-of-service server to a country where the manufacturer has a certified ISP.

1. *Guidance:* 11.2.1, Page 74, line 48 through Page 75 lines 1 and 2: Verification Requirements 1) a) must clearly require evidence that:
   1. The scope of products in the government program includes servers;
   2. The government program provides services to EPEAT purchasers/customers, and
   3. The program does not allow manufacturers to “control the selection of initial service providers”.

*Balloting comment:* Page 74, line 48 through Page 75 lines 1 and 2, revise Verification Requirements in 1) a) to read:

“a) Government-approved program(s) utilized by the manufacturer in the jurisdiction where the product was taken back, with evidence of:

• The scope of products covered by the government-approved program includes servers;

• The entities/waste generators covered by the government program include EPEAT server users (e.g., consumers, commercial/institutional users, or both);

• Manufacturer participation in the government-approved program in that country/region; and

• No ability or option for the manufacturer to control the selection of initial service providers in the government-approved program.”

1. *Guidance:* 11.2.1, Page 75, b) ii), Lines 13 – 15: As written, there is no requirement to provide evidence that the CB is accredited to certify to the QERS, as required in 2)a).

*Balloting comment:* Page 75, b) ii), Lines 13 – 15: Add requirement to provide evidence that the CB is accredited to certify to the QERS, e.g. “For initial service providers meeting 2a) above, copy/evidence of a current accredited certification performed by a certification body that is accredited to certify to the Qualified Electronics Recycling Standard (s), and/or”

1. *Guidance:* 11.2.1, Page 75, b) iv), Lines 20 – 26: This subsection of Verification Requirements requires “documentation of the... competency of third party conformity assessment body as specified in 2 c) above”, when 2 c) above lists zero competency requirements for auditing to a QERS. Therefore, this subsection of Verification Requirements is meaningless, circular, and very bad standards writing. It is unacceptable. Furthermore, there is no requirement for any audit reports in 2)c) above, and therefore the Verification Requirements should not be referencing audit reports that are not required above in a system with no parameters, no oversight, and no rules for minimum auditing requirements to a QERS.

*Balloting comment:* Page 75, b) iv), Lines 20 – 26: This subsection of Verification Requirements should be deleted, along with 2)c) above. If not, detailed conformity assessment requirements for CBs to audit to a QERS should be defined, along with identifying the skilled entities who will regularly ensure CBs meet these qualifications on an ongoing basis. Furthermore, requirements for generating written audit reports containing ISP non-conformities and rules for closing out those non-conformities must be added in 2)c) above.

1. *Guidance:* 11.2.1, Page 75, Lines 28-30, letter c): There are no requirements here to provide evidence that efforts are being made to enforce contracts. Any manufacturer serious about enforcing its contracts would have some sort of mechanism in place, such as on-site audits, administrative audits, receiving regular reports from the contracted vendor, etc.

*Balloting comment:* Page 75, Lines 28-30, letter c): “When an agent is being used, the manufacturer must demonstrate that it has and enforces a contract with the agent and that the agent has and enforces a contract with the initial service providers that are providing the take-back services for the manufacturer.”

**11.2.2 Required - Trans-boundary movements (corporate)**

*1) Guidance:* Page 75, 11.2.2, Line 35: Removing the phrase “at any point” now creates a loophole for any servers that don’t go from the customer directly to the ISP; this would allow the manufacturer to simply move the servers to any other point aside from the customer in order to avoid this requirement. Clarify that this section covers any transboundary movement of the servers in getting them from the customer to the ISP. The simplest solution is to restore ‘at any point’.

*Balloting comment:* Page 75, 11.2.2, Line 35: “If equipment and components collected pursuant to criteria 11.1.1 and 11.2.1 and materials derived from them are transported across national boundaries at any point from the customer to the initial service provider facility, the manufacturer shall...”

1. *Guidance:* Page 75, 11.2.2, Line 37: Restore the important footnote by placing it right after the first word in line 39 (“requirements”).

*Balloting comment:* Page 75, 11.2.2, Line 37: Restore the important footnote by placing it right after the first word in line 39 (“requirements”).

1. *Guidance:* Page 76, Line 19: See Guidance for 1) above.

*Balloting comment:* Page 76, 11.2.2, Line 19: Restore “at any point”, as above.

**11.2.3 Optional - Publicly available record of the reuse/recycling achievement (corporate)**

*Guidance:* This criterion is adequate.

*Balloting Comment:* N/A