# Record of Letter Ballot Review by TC Chapter for Procedural Review

**Region/Locale: North America**
**Global Technical Committee: Information & Control**
**TC Chapter Cochairs: Brian Rubow (Cimetrix), Jack Ghiselli (Ghiselli Consulting), James Moyne (AMAT / University of Michigan)**
**Standards Staff: Michelle Sun**

|  | Scheduled in Background Statement | Actual |
|---|---|---|
| **Date** | **4/5/2023** | **4/5/2023** |
| **Location** | **Milpitas, CA** | **Milpitas, CA** |
| **Reason for Change of Date and/or Location (if changed)** |  |  |

**Note: See *Regulations* ¶ 9.5 Exceptions for allowable reason to change.**

## I. Document Number and Title

| Document Number | Document Title |
|---|---|
| 7002 | Revision to SEMI E132-0922 Specification for Equipment Client Authentication and Authorization and SEMI E132.2-0422e Specification for Protocol Buffers for Equipment Client Authentication and Authorization (ECA) |

## II. Tally

**Standards staff to fill in.**

**Voting Tally: As-cast tally after close of voting period**

**Note: A minimum of 60% of the Voting Interests that have TC Members within the global technical committee that issued the Letter Ballot must return Votes. (*Regulations* ¶ 9.6.2.1.1)**

**Voting Tally (with example values):**

| Voting Interest: | Returned Votes | | Distribution | | Return Rate | |
|---|---|---|---|---|---|---|
| **Letter Ballot** | **90** | ÷ | **147** | = | **61.2%** | ≥60% |
| **Intercommittee Ballot** | **44** | | | | | |
| | | | | | | |
| **Voting Interest Reject(s)** | **1** | | | Total Voters with Rejects | **1** | |
| **Voting Interest Accept(s)** | **57** | | | | | |
| | | | | | | |

**Note: See *Regulations* § 3.2.1 for definition of Voting Interest.**

# III. Rejects

## Voting Interest Reject 1 (Voting Interest Name: Doople)
## Voter Reject 1 (Voter: Hyungsu Kim)
**Negative 1**

<table>
<tr>
<td rowspan="8"><strong>Negative</strong></td>
<td rowspan="2"><strong>Referenced Section/ Paragraph</strong></td>
<td colspan="3"><strong>*TF/TC Chapter to fill in, including text in the ballot if necessary.</strong></td>
</tr>
<tr>
<td colspan="3"><strong>Table 34</strong></td>
</tr>
<tr>
<td rowspan="2"><strong>Negative Text</strong></td>
<td colspan="3"><strong>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</strong></td>
</tr>
<tr>
<td colspan="3"><strong>In Table.34 ActiveSession Attribute, parameters received from Establish Session must include all parameters except Password.<br>That is, notificationRecipient must also be included.<br>(Since the result of the change session must be confirmed using the Notification Message, the Notification Message has become a<br>mandatory message rather than an optional one.)</strong></td>
</tr>
</table>

| TF input (optional) | | |
|---|---|---|

<table>
<tr>
<td rowspan="2"><strong>Withdrawal (check one)</strong></td>
<td>x</td>
<td>No Negative withdrawal made by Voter.</td>
<td><strong>GO TO "Related" subsection</strong></td>
</tr>
<tr>
<td></td>
<td>Withdrawal document received by Standards staff on MM/DD/YYYY.</td>
<td><strong>GO TO "Final" subsection → (A)</strong></td>
</tr>
</table>

<table>
<tr>
<td rowspan="8"><strong>Related</strong></td>
<td rowspan="3"><strong>Motion and Reason (check one)</strong></td>
<td>x</td>
<td colspan="2">'Related' is mutually agreed upon. <strong>(Needs no motion.)</strong></td>
<td><strong>GO TO "Persuasive" subsection</strong></td>
</tr>
<tr>
<td></td>
<td colspan="2">Negative is not related. <strong>(Needs ≥2/3 votes to pass.)</strong></td>
<td></td>
</tr>
<tr>
<td style="background:black"></td>
<td>Reason</td>
<td>XXXX</td>
<td></td>
</tr>
<tr>
<td><strong>Motion by/ 2<sup>nd</sup> by</strong></td>
<td colspan="4">Name (Company)/Name (Company)</td>
</tr>
<tr>
<td><strong>Discussion</strong></td>
<td colspan="4"></td>
</tr>
<tr>
<td rowspan="3"><strong>Result of Vote (check one)</strong></td>
<td colspan="4">XX Y-XX N; Motion passed/failed.</td>
</tr>
<tr>
<td></td>
<td colspan="2">[Negative is not related.] < 2/3</td>
<td><strong>GO TO "Persuasive" subsection</strong></td>
</tr>
<tr>
<td></td>
<td colspan="2">2/3 ≤ [Negative is not related.]</td>
<td><strong>GO TO "Final" subsection → (B)</strong></td>
</tr>
</table>

<table>
<tr>
<td rowspan="4"><strong>Persuasive</strong></td>
<td rowspan="3"><strong>Motion and Reason (check one)</strong></td>
<td></td>
<td colspan="2">Negative is related and persuasive. <strong>(Needs >1/3 votes to pass.)</strong></td>
</tr>
<tr>
<td>x</td>
<td colspan="2">Negative is related and not persuasive. <strong>(Needs ≥2/3 votes to pass.)</strong></td>
</tr>
<tr>
<td style="background:black"></td>
<td>Reason</td>
<td>The security admin agent gets the ActiveSession object through the GetActiveSession() operation.<br><br>The security admin agent does not need to know who is receiving notification messages for the session.<br><br>This information is not required by the security admin agent to perform session management activities (e.g., decide to close a session)</td>
</tr>
<tr>
<td><strong>Motion by/ 2<sup>nd</sup> by</strong></td>
<td colspan="3">By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated</td>
</tr>
</table>

| | | | | | | |
|---|---|---|---|---|---|---|
| | **Discussion** | None | | | | |
| | **Result of Vote (check one)** | 11 **Y**-0 **N**; Motion passed. | | | | |
| | | | [Negative is related and persuasive.] > 1/3 | **Is a technical change recommended? (check one)** | **Y** | GO TO "Address by Technical Change Option" subsection |
| | | | [Negative is related and not persuasive.] < 2/3 | | **N** | GO TO "Final" subsection → (E) |
| | | | 2/3 ≤ [Negative is related and not persuasive.] < 90% | GO TO "Final" subsection → (C) | | |
| | | x | 90% ≤ [Negative is related and not persuasive.] | GO TO "Not Significant Finding Option" subsection | | |

| **Not Significant Finding Option** | | | | |
|---|---|---|---|---|
| | This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.1.4.5.2) | | | |
| | **Use of "Not significant finding option" (check one)** | x | It is mutually agreed upon to term the Negative "not significant". | GO TO "Final" subsection → (D) |
| | | | It is mutually agreed upon to term the Negative "significant". | GO TO "Final" subsection → (C) |
| | | | Whether or not the Negative is "not significant" is decided by a vote. | |
| | **Motion** | The Negative is "not significant". | | |
| | **Motion by/ 2nd by** | Name (Company)/Name (Company) | | |
| | **Vote** | | XX **Y**-XX **N**; Motion passed with simple majority | GO TO "Final" subsection → (D) |
| | | | XX **Y**-XX **N**; Motion failed with simple majority | GO TO "Final" subsection → (C) |

| **Final** | | | | | |
|---|---|---|---|---|---|
| | **(check if applicable)** | | **(A)** | Withdrawn **(counted under h in disposition)** | |
| | | | **(B)** | Not related **(counted under i in disposition)** | |
| | | | **(C)** | Related and not persuasive (significant) | |
| | | x | **(D)** | Not significant **(counted under j in disposition)** | |
| | | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | | | **(F)** | Addressed by technical change **(counted under k disposition)** | |
| | **(check if applicable)** | | *Comment generated. See Section V-(ii) Comment # X.* | | |

*This table is needed for each Negative.*

## Negative 2

| **Negative** | | | |
|---|---|---|---|
| | **Referenced Section/ Paragraph** | *TF/TC Chapter to fill in, including text in the ballot if necessary.* | |
| | | 13.2.6.6 | |
| | **Negative Text** | *Original complete Negative text (e.g., issue, justification, suggestion) should be copied.* | |
| | | If operationalRecipient parameter is Consumer --> Apostrophe or Quotation Mark at the operationalRecipient parameter's value<br>If operationalRecipient parameter is 'Consumer' ('Client' or 'None') | |
| **TF input (optional)** | | | |
| **Withdrawal (check one)** | | No Negative withdrawal made by Voter. | GO TO "Related" subsection |

| | | | | | |
|---|---|---|---|---|---|
| | | x | | Withdrawal document received by Standards staff on 4/4/2023. | **GO TO "Final" subsection → (A)** |

| | | | | | |
|---|---|---|---|---|---|
| **Final** | **(check if applicable)** | x | **(A)** | Withdrawn **(counted under h in disposition)** | |
| | | | **(B)** | Not related **(counted under i in disposition)** | |
| | | | **(C)** | Related and not persuasive (significant) | |
| | | | **(D)** | Not significant **(counted under j in disposition)** | |
| | | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | | | **(F)** | Addressed by technical change **(counted under k disposition)** | |
| | *(check if applicable)* | | | *Comment generated. **See Section V-(ii) Comment # X.*** | |

**This table is needed for each Negative.**

## Negative 3

| | | | | | |
|---|---|---|---|---|---|
| **Negative** | **Referenced Section/ Paragraph** | **\*TF/TC Chapter to fill in, including text in the ballot if necessary.** | | | |
| | | **Table 20** | | | |
| | **Negative Text** | **\*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.** | | | |
| | | **◆Reject. 3** **Table 20 Adding an ACLEntry Using a Salt Value from an Equipment Server** **-->** **Depending on the implementation, in the process of adding a new entry for AddACL in the U.I, the Client ID for the scheduled ACL Entry** **may be created in advance and transmitted.** **However, in a normal scenario, the ClientID cannot be sent because the ClientID is in a not assigned state in the process for AddACL.** | | | |

| | | | | |
|---|---|---|---|---|
| **TF input (optional)** | | | | |

| | | | | |
|---|---|---|---|---|
| **Withdrawal (check one)** | | No Negative withdrawal made by Voter. | | **GO TO "Related" subsection** |
| | | Withdrawal document received by Standards staff on MM/DD/YYYY. | | **GO TO "Final" subsection → (A)** |

| | | | | | |
|---|---|---|---|---|---|
| **Related** | **Motion and Reason (check one)** | x | 'Related' is mutually agreed upon. **(Needs no motion.)** | | **GO TO "Persuasive" subsection** |
| | | | Negative is not related. **(Needs ≥2/3 votes to pass.)** | | |
| | | | Reason | XXXX | |
| | **Motion by/ 2ⁿᵈ by** | Name (Company)/Name (Company) | | | |
| | **Discussion** | | | | |
| | **Result of Vote (check one)** | XX **Y**-XX **N**; Motion passed/failed. | | | |
| | | | [Negative is not related.] < 2/3 | | **GO TO "Persuasive" subsection** |
| | | | 2/3 ≤ [Negative is not related.] | | **GO TO "Final" subsection → (B)** |

| | | | | |
|---|---|---|---|---|
| **Persuasive** | **Motion and Reason (check one)** | | Negative is related and persuasive. **(Needs >1/3 votes to pass.)** | |
| | | x | Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Reason | | Table 20 describes how GetNewSalt() and AddACLEntry() are used to add a new ACL Entry. How the security admin agent gets the clientId to use for the new ACL Entry is implementation specific (e.g. it may be through the UI) The security admin agent will have first established a session using its own clientID and password. The security admin agent will call GetNewSalt() to get a salt value to use for the password hashing of the new ACL Entry. Each ACLEntry today requires a client ID as part of the AddACLEntry operation. | | | | |

| | | |
|---|---|---|
| Motion by/ 2nd by | By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated | |
| Discussion | None | |

**Result of Vote (check one)**

12 **Y**-0 **N**; Motion passed.

| | | | | | | |
|---|---|---|---|---|---|---|
| | [Negative is related and persuasive.] > 1/3 | **Is a technical change recommended?** (check one) | | **Y** | **GO TO "Address by Technical Change Option" subsection** |
| | [Negative is related and not persuasive.] < 2/3 | | | **N** | **GO TO "Final" subsection → (E)** |
| | 2/3 ≤ [Negative is related and not persuasive.] < 90% | **GO TO "Final" subsection → (C)** | | | |
| x | 90% ≤ [Negative is related and not persuasive.] | **GO TO "Not Significant Finding Option" subsection** | | | |

## Not Significant Finding Option

**This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.1.4.5.2)**

| | | | |
|---|---|---|---|
| **Use of "Not significant finding option" (check one)** | x | It is mutually agreed upon to term the Negative "not significant". | **GO TO "Final" subsection → (D)** |
| | | It is mutually agreed upon to term the Negative "significant". | **GO TO "Final" subsection → (C)** |
| | | Whether or not the Negative is "not significant" is decided by a vote. | |
| **Motion** | The Negative is "not significant". | | |
| **Motion by/ 2nd by** | Name (Company)/Name (Company) | | |

| | | |
|---|---|---|
| **Vote** | XX **Y**-XX **N**; Motion passed with simple majority | **GO TO "Final" subsection → (D)** |
| | XX **Y**-XX **N**; Motion failed with simple majority | **GO TO "Final" subsection → (C)** |

## Final

| | | | | |
|---|---|---|---|---|
| **(check if applicable)** | | **(A)** | Withdrawn **(counted under h in disposition)** | |
| | | **(B)** | Not related **(counted under i in disposition)** | |
| | | **(C)** | Related and not persuasive (significant) | |
| | x | **(D)** | Not significant **(counted under j in disposition)** | |
| | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | | **(F)** | Addressed by technical change **(counted under k disposition)** | |
| **(check if applicable)** | | *Comment generated. **See Section V-(ii) Comment # X**.* | | |

## Negative 4

| | | | | |
|---|---|---|---|---|
| **Negative** | **Referenced Section/ Paragraph** | *TF/TC Chapter to fill in, including text in the ballot if necessary. | | |
| | | 13.2.6.9 | | |
| | **Negative Text** | *Original complete Negative text (e.g., issue, justification, suggestion) should be copied. | | |
| | | *Table 44 Sequence to Establish a Session*<br>**When Establish Session, Client is assumed to know the equipmentId, clientId and plaintext ACL password. The equipmentId can be<br>obtained using the InterfaceDiscovery interface.**<br>**-->**<br>**That is, the client must already know all the information used in AddACL. Therefore, it is appropriate to omit to receive salt from equipment again through GetEquipmentInformation. Why not just get the challengeToken?**<br>**The salt value is a key attribute used for encryption. Is it safe to expose it in the interface process?**<br>**How about changing GetEquipmentInformationRequest to 'GetNewToken'?**<br>**Originally, GetEquipmentInformation was created for the purpose of the interface to receive EquipmentID, but since its purpose has<br>changed, it is appropriate to change the name to suit the purpose.** | | |

| | | | |
|---|---|---|---|
| **TF input (optional)** | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Withdrawal (check one)** | | No Negative withdrawal made by Voter. | | **GO TO "Related" subsection** | |
| | | Withdrawal document received by Standards staff on MM/DD/YYYY. | | **GO TO "Final" subsection → (A)** | |

| | | | | | |
|---|---|---|---|---|---|
| **Related** | **Motion and Reason (check one)** | x | 'Related' is mutually agreed upon. **(Needs no motion.)** | **GO TO "Persuasive" subsection** | |
| | | | Negative is not related. **(Needs ≥2/3 votes to pass.)** | | |
| | | | Reason | XXXX | |
| | **Motion by/ 2nd by** | Name (Company)/Name (Company) | | | |
| | **Discussion** | | | | |
| | **Result of Vote (check one)** | XX **Y**-XX **N**; Motion passed/failed. | | | |
| | | | [Negative is not related.] < 2/3 | **GO TO "Persuasive" subsection** | |
| | | | 2/3 ≤ [Negative is not related.] | **GO TO "Final" subsection → (B)** | |

| | | | | |
|---|---|---|---|---|
| **Persuasive** | **Motion and Reason (check one)** | | Negative is related and persuasive. **(Needs >1/3 votes to pass.)** | |
| | | x | Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)** | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | Reason | The Client using that new clientID does not know the salt value, and needs to get it from the Equipment Server in order to be able to calculate the correct password hashes. That is why it needs to be provided through the GetEquipmentInformation() operation.<br><br>The salt value helps make it harder to use lookup tables to pre-compute hashes for password attacks. It does not need to be a secret value. It is OK to transmit from the Equipment Server. The expectation is that the Client and Equipment Server are using secure communications to protect this information.<br><br>Don't want to rename GetEquipmentInformation() to GetNewToken() since we get both the salt value (for the specified clientId and equipmentId) as well as the challengeToken from this operation. | | | | |
| | **Motion by/ 2nd by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | | | | | |
| | **Discussion** | None | | | | | |
| | **Result of Vote (check one)** | 13 **Y**-0 **N**; Motion passed. | | | | | |
| | | | [Negative is related and persuasive.] > 1/3 | **Is a technical change recommended? (check one)** | | **Y** | **GO TO "Address by Technical Change Option" subsection** |
| | | | [Negative is related and not persuasive.] < 2/3 | | | **N** | **GO TO "Final" subsection → (E)** |
| | | | 2/3 ≤ [Negative is related and not persuasive.] < 90% | **GO TO "Final" subsection → (C)** | | | |
| | | x | 90% ≤ [Negative is related and not persuasive.] | **GO TO "Not Significant Finding Option" subsection** | | | |
| **Not Significant Finding Option** | | **This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (Regulations ¶ 9.6.1.4.5.2)** | | | | | |
| | **Use of "Not significant finding option" (check one)** | x | It is mutually agreed upon to term the Negative "not significant". | **GO TO "Final" subsection → (D)** | | | |
| | | | It is mutually agreed upon to term the Negative "significant". | **GO TO "Final" subsection → (C)** | | | |
| | | | Whether or not the Negative is "not significant" is decided by a vote. | | | | |
| | **Motion** | The Negative is "not significant". | | | | | |
| | **Motion by/ 2nd by** | Name (Company)/Name (Company) | | | | | |
| | **Vote** | | XX **Y**-XX **N**; Motion passed with simple majority | **GO TO "Final" subsection → (D)** | | | |
| | | | XX **Y**-XX **N**; Motion failed with simple majority | **GO TO "Final" subsection → (C)** | | | |
| **Final** | **(check if applicable)** | | **(A)** | Withdrawn **(counted under h in disposition)** | | | |
| | | | **(B)** | Not related **(counted under i in disposition)** | | | |
| | | | **(C)** | Related and not persuasive (significant) | | | |
| | | x | **(D)** | Not significant **(counted under j in disposition)** | | | |
| | | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** | | |
| | | | **(F)** | Addressed by technical change **(counted under k disposition)** | | | |

| | *(check if applicable)* | | Comment generated. *See Section V-(ii) Comment # X.* |
|---|---|---|---|

## Negative 5

<table>
<tr><td rowspan="3"><strong>Negative</strong></td><td rowspan="2"><strong>Referenced Section/ Paragraph</strong></td><td colspan="3"><strong>*TF/TC Chapter to fill in, including text in the ballot if necessary.</strong></td></tr>
<tr><td colspan="3"><strong>13.2.7</strong></td></tr>
<tr><td rowspan="2"><strong>Negative Text</strong></td><td colspan="3"><strong>*Original complete Negative text (e.g., issue, justification, suggestion) should be copied.</strong></td></tr>
<tr><td colspan="3"><strong>13.2.7<br>--&gt;<br>Agree to 2 Step Endpoint Change due to implementation issues.<br>However, the process of initiating is already included in the meaning of change as a service name.<br>So, don't call InitiateChangeSessionEndpoint, just use ChangeSessionEndpoint.<br>13.2.7.4..3 InitiateChangeSessionEndpointComplete notification<br>--&gt;<br>If it is separated in 2 Steps, sending InitiateChangeSessionEndpointComplete again after sending the result with<br>SessionEndPointChanged Notification makes only complicate communication, so I think it's right to get rid of it.<br>and,<br>SessionEndPointChanged Notification - I want the document to include information that it should be sent to a new session in case of<br>pass, and to old session in case of fail.</strong></td></tr>
<tr><td colspan="2"><strong>TF input (optional)</strong></td><td colspan="3"></td></tr>
<tr><td colspan="2" rowspan="2"><strong>Withdrawal<br>(check one)</strong></td><td></td><td>No Negative withdrawal made by Voter.</td><td><strong>GO TO "Related" subsection</strong></td></tr>
<tr><td></td><td>Withdrawal document received by Standards staff on MM/DD/YYYY.</td><td><strong>GO TO "Final" subsection → (A)</strong></td></tr>
<tr><td rowspan="8"><strong>Related</strong></td><td rowspan="3"><strong>Motion and Reason<br>(check one)</strong></td><td>x</td><td>'Related' is mutually agreed upon. <strong>(Needs no motion.)</strong></td><td><strong>GO TO "Persuasive" subsection</strong></td></tr>
<tr><td></td><td colspan="2">Negative is not related. <strong>(Needs ≥2/3 votes to pass.)</strong></td></tr>
<tr><td>■</td><td>Reason</td><td>XXXX</td></tr>
<tr><td><strong>Motion by/ 2<sup>nd</sup> by</strong></td><td colspan="3">Name (Company)/Name (Company)</td></tr>
<tr><td><strong>Discussion</strong></td><td colspan="3"></td></tr>
<tr><td rowspan="3"><strong>Result of Vote<br>(check one)</strong></td><td colspan="3">XX <strong>Y</strong>-XX <strong>N</strong>; Motion passed/failed.</td></tr>
<tr><td></td><td>[Negative is not related.] &lt; 2/3</td><td><strong>GO TO "Persuasive" subsection</strong></td></tr>
<tr><td></td><td>2/3 ≤ [Negative is not related.]</td><td><strong>GO TO "Final" subsection → (B)</strong></td></tr>
<tr><td rowspan="2"><strong>Persuasive</strong></td><td rowspan="2"><strong>Motion and Reason<br>(check one)</strong></td><td></td><td>Negative is related and persuasive. <strong>(Needs &gt;1/3 votes to pass.)</strong></td><td></td></tr>
<tr><td>x</td><td>Negative is related and not persuasive. <strong>(Needs ≥2/3 votes to pass.)</strong></td><td></td></tr>
</table>

| | | | |
|---|---|---|---|
| | | Reason | The InitiateChangeSessionEndpoint() operation was modelled on the Remote Command functionality in SECS-II, where the S2F41 command comes back with HCACK code 4 – Will complete and signal with an event later.<br><br>The operation name includes the 'Initiate' part to make it clear the process will not be done when the Equipment Server returns from the operation call.   (It is a two-step process)<br><br>The InitiateChangeSessionEndpointComplete and SessionEndpointChanged messages serve different purposes and cannot be combined.<br><br>Once the session endpoint has changed, the new endpoint gets messages, so there is no need for a specific message to say the new endpoint is getting messages. |

| | Motion by/ 2nd by | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated |
|---|---|---|
| | Discussion | None |

**Result of Vote (check one)**

12 **Y**-0 **N**; Motion passed.

| | | Is a technical change recommended? (check one) | | | |
|---|---|---|---|---|---|
| | [Negative is related and persuasive.] > 1/3 | | | **Y** | **GO TO "Address by Technical Change Option" subsection** |
| | [Negative is related and not persuasive.] < 2/3 | | | **N** | **GO TO "Final" subsection → (E)** |
| | 2/3 ≤ [Negative is related and not persuasive.] < 90% | **GO TO "Final" subsection → (C)** | | | |
| x | 90% ≤ [Negative is related and not persuasive.] | **GO TO "Not Significant Finding Option" subsection** | | | |

**Not Significant Finding Option**

This option can be used only "if the TC Chapter finds a Negative not persuasive by a vote equal to or greater than 90% of the persons voting on the action". (*Regulations* ¶ 9.6.1.4.5.2)

| | Use of "Not significant finding option" (check one) | | |
|---|---|---|---|
| | x | It is mutually agreed upon to term the Negative "not significant". | **GO TO "Final" subsection → (D)** |
| | | It is mutually agreed upon to term the Negative "significant". | **GO TO "Final" subsection → (C)** |
| | | Whether or not the Negative is "not significant" is decided by a vote. | |
| Motion | The Negative is "not significant". | | |
| Motion by/ 2nd by | Name (Company)/Name (Company) | | |

| Vote | | | |
|---|---|---|---|
| | | XX **Y**-XX **N**; Motion passed with simple majority | **GO TO "Final" subsection → (D)** |
| | | XX **Y**-XX **N**; Motion failed with simple majority | **GO TO "Final" subsection → (C)** |

**Final** (check if applicable)

| | | | |
|---|---|---|---|
| | | **(A)** | Withdrawn **(counted under h in disposition)** |
| | | **(B)** | Not related **(counted under i in disposition)** |
| | | **(C)** | Related and not persuasive (significant) |
| | x | **(D)** | Not significant **(counted under j in disposition)** |
| | | **(E)** | Related and persuasive and not addressed by technical change   **DOCUMENT FAILS** |
| | | **(F)** | Addressed by technical change **(counted under k disposition)** |

| | (check if applicable) | | Comment generated. *See Section V-(ii) Comment # X.* |
|---|---|---|---|

## Disposition of Voting Interest Reject 1

**Check only when the Document has not been failed.**

| | | |
|---|---|---|
| 5 | Original number (#) of Negatives | **(g)** |
| 1 | Number of Negatives withdrawn | **(h)** |
| 0 | Number of Negatives found not related | **(i)** |
| 4 | Number of Negatives found not significant | **(j)** |
| 0 | Number of Negatives addressed by technical change **(Negative becomes not significant)** | **(k)** |

| **Final** | x | $g - (h + i + j + k) = 0$ | **Reject is Not Valid and is not included in the denominator of § VI.** *Approval Conditions Check* |
|---|---|---|---|
| | | $g - (h + i + j + k) > 0$ | **Reject is included in the denominator of § VI.** *Approval Conditions Check* |
| | | Reject without a Negative | **Not Valid** |

*This table is needed for each Voting Interest Reject.*

**Note: If all of the Negatives included with a Reject Vote are withdrawn, determined to be not related, or determined to be not significant, the Reject Vote is not valid. (*Regulations* ¶ 9.4.3.3)**
**Note: A Negative addressed by a technical change is automatically considered to be not significant. (*Regulations* ¶ 9.6.1.4.5.2)**

# IV. Other Technical Issues

**Note: TC Chapter may choose to address a technical issue that is not part of a Negative received on a Letter Ballot (i.e., a Comment or a reason not addressed by a Vote response) by handling it as a Negative and finding it related and technically persuasive. The TC Chapter may then fail the Document or address such technical issue by using the procedure defined in *Regulations* § 9.6.1.4.3 to make a technical change to the Document. (*Regulations* ¶ 9.6.1.4.2.5)**

# Technical Change #1 (1a-1d)

| Technical Issue | Origin | *TF/TC Chapter to choose<br>Comment #2-2 (Voter: Mochizuki, Tadashi (TEL)) / Comment to be addressed with Technical Changes |
|---|---|---|
| | Referenced Section/ Paragraph | *TF/TC Chapter to fill in including text in the ballot as appropriate.* |
| | | 12.3.2.3.4 |
| | Reason | *Original Comment text, if applicable, and problem statement, including justification and suggestion, should be copied.* |

| | | Comment Text:<br>In background Statement, Revision Summary, the following sentence is written.<br>• Rework ACL passwords and security scenarios.<br>Allow more than one principal to have the Security Admin privilege assigned (while still restricting to only one active session with access to the SecurityAdmin functionality). The securityAdminPrivileges privilege still cannot be assigned to the reserved 'anyPrincipal'. (reflecting the direction from the Computing Device Security (CDS) Task Force to remove generic accounts.)<br>It recognizes that multiple Principals can be granted SecurityAdmin privileges. However, 12.3.2.3.4 is the following sentence.<br>If the ACLEntry is a RoleAssignment or PrivilegeAssignment that would result in more than one Principal having the SecurityAdmin privilege (refer to ¶ 10.2.10.3), the Equipment Server shall return an error.<br>I think that it is conflicting because 12.3.2.3.4 says "cannot grant SecurityAdmin privileges to more than one Principal".<br><br>Discussion:<br>The intention is that there can be more than one Principal with the SecurityAdmin privilege, and there can only be one session active at a time with the SecurityAdmin Principal. (attempts to call EstablishSession that would result in a second session with SecurityAdmin privileges returns an error.)<br><br>This is a technical issue that needs to be addressed through a Ratification Ballot |
|---|---|---|

**Handle technical issue identified above as a Negative.**

| | | | | | |
|---|---|---|---|---|---|
| **Related** | **Motion and Reason (check one)** | x | 'Related' is mutually agreed upon. **(Needs no motion.)** | | **GO TO "Persuasive" subsection** |
| | | | Negative is not related and assigned to TF. **(Needs ≥2/3 votes to pass.)** | | |
| | | | Negative is not related and placed on agenda of current TC Chapter meeting as new business. **(Needs ≥2/3 votes to pass.)** | | |
| | | ■ | Reason | XXXX | |
| | **Motion by/ 2nd by** | Name (Company)/Name (Company) | | | |
| | **Discussion** | | | | |
| | **Result of Vote (check one)** | XX **Y**-XX **N**; Motion passed/failed. | | | |
| | | | [Negative is not related.] <2/3 | | **GO TO "Persuasive" subsection** |
| | | | 2/3 ≤ [Negative is not related] and assigned to TF. | | **GO TO "Final" subsection → (B)** |
| | | | 2/3 ≤ [Negative is not related] and placed on agenda of current TC Chapter meeting as new business. | | |
| **Persuasive** | **Motion and Reason (check one)** | x | Negative is related and persuasive. **(Needs >1/3 votes to pass.)** | | |
| | | | Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)** | | |
| | | ■ | Reason | There is a conflict where AddACLEntry returns an error if more than one principal is assigned SecurityAdmin privilege. | |
| | **Motion by/ 2nd by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | | | |
| | **Discussion** | None | | | |
| | | 13 **Y**-0 **N**; Motion passed. | | | |

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| Result of Vote (check one) | x | [Negative is related and persuasive.] > 1/3 | **Is a technical change recommended?** (check one) | x | **Y** | GO TO "Address by Technical Change Option" subsection |
|---|---|---|---|---|---|---|
| | | [Negative is related and not persuasive.] < 2/3 | | | **N** | GO TO "Final" subsection → (E) |
| | | 2/3 ≤ [Negative is related and not persuasive.] < 90% | GO TO "Final" subsection → (C) | | | |

**Technical Change Recommendations**

**Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.**

| | | | |
|---|---|---|---|
| **Address by Technical Change Option** | **Technical Changes** | **1** | **FROM: Section/Paragraph SEMI E132, Section 12.3.2.3.4**<br><br>12.3.2.3.3 If the ACLEntry is a RoleAssignment and refers to a Role that does not have a PrivilegeAssignment ACLEntry defined, the Equipment Server shall return an error.<br><br>12.3.2.3.4 If the ACLEntry is a RoleAssignment or PrivilegeAssignment that would result in more than one Principal having the SecurityAdmin privilege (refer to ¶ 10.2.10.3), the Equipment Server shall return an error. |

**TO: Section/Paragraph SEMI E132, 12.3.2.3.4**

12.3.2.3.3 If the ACLEntry is a RoleAssignment and refers to a Role that does not have a PrivilegeAssignment ACLEntry defined, the Equipment Server shall return an error.

~~12.3.2.3.4 If the ACLEntry is a RoleAssignment or PrivilegeAssignment that would result in more than one Principal having the SecurityAdmin privilege (refer to ¶ 10.2.10.3), the Equipment Server shall return an error.~~

**Justification (If necessary)**

**More than one Principal can have the SecurityAdmin Privilege.**

**The AddACLEntry operation should not return an error if the new ACL Entry results in more than one Principal having the SecurityAdmin privilege.**

**FROM: Section/Paragraph SEMI E132, 13.2.6.5**

13.2.6.4 A Client shall have only one active session per ACLEntry. The Client's assigned Privileges from its ACLEntry are read at the time the session is established and are assigned to the session. Subsequent requests using the established session will use the session's Privileges for access verification even if the corresponding clientId's Privileges have changed since then. All sessions established are persistent as described in ¶ 13.4.

13.2.6.5 The Equipment Server may not send operational messages for this session. (operationalRecipient parameter is None.) In this scenario, the Equipment Server does not send any SessionPing messages for the session.

13.2.6.6 The operationalRecipient and endpoint parameters determine where operational messages are to be sent for the session being established, and if the Equipment Server needs to establish an outgoing connection to the Consumer:

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**TO: Section/Paragraph SEMI E132, 13.2.6.5**

13.2.6.4 A Client~~shall~~ have only one active session per ACLEntry. The Client's assigned Privileges from its ACLEntry are read at the time the session is established and are assigned to the session. Subsequent requests using the established session will use the session's Privileges for access verification even if the corresponding clientId's Privileges have changed since then. All sessions established are persistent as described in ¶ 13.4.

13.2.6.5 The Equipment Server shall have at most one session with SecurityAdmin privileges active at a time. If the Equipment Server already has an active session with SecurityAdmin privileges, the Equipment Server shall reject the EstablishSession() request with error 'There is already an established session with SecurityAdmin privilege'.

13.2.6.6 The Equipment Server may not send operational messages for this session. (operationalRecipient parameter is None.) In this scenario, the Equipment Server does not send any SessionPing messages for the session.

13.2.6.7 The operationalRecipient and endpoint parameters determine where operational messages are to be sent for the session being established, and if the Equipment Server needs to establish an outgoing connection to the Consumer:

**Justification (If necessary)**

**Describe the requirement that the Equipment Server rejects the EstablishSession() operation if it will result in more than one active session with the SecurityAdmin privilege.**

**FROM: Section/Paragraph SEMI E132, Table 43**

| Parameter | Description | Kind | Form |
|---|---|---|---|
| error | Specified ACL entry already has an active session | error | Text, shall include the text 'Specified ACL entry already has an active session'. |

**TO: Section/Paragraph SEMI E132, Table 43**

**Add new row to define the new EstablishSession() error to Table 43 - EstablishSession Parameter Definitions**

| Parameter | Description | Kind | Form |
|---|---|---|---|
| error | Specified ACL entry already has an active session | error | Text, shall include the text 'Specified ACL entry already has an active session'. |
| error | Already a session with SecurityAdmin privilege | error | Text, shall be the text 'There is already an established session with SecurityAdmin privilege'<br><br>For security reasons, no additional information describing the session with SecurityAdmin privilege is required. |

**Justification**

Describe that error the Equipment Server reject the EstablishSession() operation there is already an established session with the SecurityAdmin privilege.

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| | | | |
|---|---|---|---|
| | 4 | **FROM: Section/Paragraph SEMI E132.2, Table 4** | |

| SEMI E132 Error | Common Error Code |
|---|---|
| ChallengeToken expired | 6023 |

**TO: Section/Paragraph SEMI E132.2, Table 4**

**SEMI E132.2 - Add new row to define the new EstablishSession() error to Table 4 SEMI E132 Error Codes**

| SEMI E132 Error | Common Error Code |
|---|---|
| ChallengeToken expired | 6023 |
| Already an established session with SecurityAdmin privilege. | 6024 |

**Justification**
**Describe that error code corresponding to the SEMI E132 error when the Equipment Server reject the EstablishSession() operation when there is already an established session with the SecurityAdmin Privilege.**

| **Motion** | Negative is addressed by the technical change(s). | |
|---|---|---|
| **Motion by/2nd by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | |
| **Discussion** | **None** | |

| **Result of Vote (check one)** | 15 **Y**-0 **N**; Motion passed. | |
|---|---|---|
| | **x** 2/3 ≤ [Negative is addressed by the technical change(s).] | **GO TO "Incorporation of the Technical Change" subsection** |
| | [Negative is not addressed by the technical change(s).] < 2/3 | **GO TO "Final" subsection → (E)** |

**Incorporation of the Technical Change**

| **Motion** | To incorporate the technical change(s). | |
|---|---|---|
| **Motion by/2nd by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | |
| **Discussion** | **None** | |

| **Result of Vote (check one)** | 11 **Y**-0 **N**; Motion passed. | |
|---|---|---|
| | **x** 90% ≤ [Agree to incorporate.] | **GO TO "Final" subsection → (F)** |
| | [Disagree to incorporate.] >10% | **GO TO "Final" subsection → (E)** |

**Final**

| **(check one)** | | **(B)** | Not related | |
|---|---|---|---|---|
| | | **(C)** | Related and not persuasive | |
| | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | x | **(F)** | Addressed by technical change | |
| **(check if applicable)** | | | Comment generated. See Section V-(ii) Comment # X. | |

# Technical Change #2

<table>
<tr><td rowspan="3"><strong>Technical Issue</strong></td><td><strong>Origin</strong></td><td colspan="5"><em>*TF/TC Chapter to choose</em><br>Comment #2-4 (Voter: Mochizuki, Tadashi (TEL)) / Comment to be addressed with Technical Changes</td></tr>
<tr><td><strong>Referenced Section/ Paragraph</strong></td><td colspan="5"><em>*TF/TC Chapter to fill in including text in the ballot as appropriate.</em><br><br><strong>Referenced Section/Paragraph: SEMI E132, Table 43</strong></td></tr>
<tr><td><strong>Reason</strong></td><td colspan="5"><em>*Original Comment text, if applicable, and problem statement, including justification and suggestion, should be copied.</em><br><br><strong>Comment Text:</strong><br><strong>In parameter =error, Description = Authentication failure;</strong><br><strong>Need to change from "challengeHash" to "challengePasswordHash"</strong></td></tr>
</table>

**Handle technical issue identified above as a Negative.**

<table>
<tr><td rowspan="4"><strong>Related</strong></td><td rowspan="2"><strong>Motion and Reason (check one)</strong></td><td>x</td><td colspan="3">'Related' is mutually agreed upon. <strong>(Needs no motion.)</strong></td><td><strong>GO TO "Persuasive" subsection</strong></td></tr>
<tr><td></td><td colspan="4">Negative is not related and assigned to TF. <strong>(Needs ≥2/3 votes to pass.)</strong></td></tr>
<tr><td></td><td colspan="5">Negative is not related and placed on agenda of current TC Chapter meeting as new business. <strong>(Needs ≥2/3 votes to pass.)</strong></td></tr>
<tr><td>■</td><td>Reason</td><td colspan="4"></td></tr>
</table>

<table>
<tr><td><strong>Motion by/ 2nd by</strong></td><td colspan="3">Name (Company)/Name (Company)</td></tr>
<tr><td><strong>Discussion</strong></td><td colspan="3"></td></tr>
<tr><td rowspan="4"><strong>Result of Vote (check one)</strong></td><td colspan="3">XX <strong>Y</strong>-XX <strong>N</strong>; Motion passed/failed.</td></tr>
<tr><td></td><td>[Negative is not related.] <2/3</td><td><strong>GO TO "Persuasive" subsection</strong></td></tr>
<tr><td></td><td>2/3 ≤ [Negative is not related] and assigned to TF.</td><td rowspan="2"><strong>GO TO "Final" subsection → (B)</strong></td></tr>
<tr><td></td><td>2/3 ≤ [Negative is not related] and placed on agenda of current TC Chapter meeting as new business.</td></tr>
</table>

<table>
<tr><td rowspan="3"><strong>Persuasive</strong></td><td rowspan="3"><strong>Motion and Reason (check one)</strong></td><td>x</td><td colspan="4">Negative is related and persuasive. <strong>(Needs >1/3 votes to pass.)</strong></td></tr>
<tr><td></td><td colspan="4">Negative is related and not persuasive. <strong>(Needs ≥2/3 votes to pass.)</strong></td></tr>
<tr><td>■</td><td>Reason</td><td colspan="3">The parameter referenced in authentication failure needs to be accurate.<br>Need to change from "challengeHash" to "challengePasswordHash"</td></tr>
</table>

<table>
<tr><td><strong>Motion by/ 2<sup>nd</sup> by</strong></td><td colspan="5">By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated</td></tr>
<tr><td><strong>Discussion</strong></td><td colspan="5">None</td></tr>
<tr><td rowspan="3"><strong>Result of Vote (check one)</strong></td><td colspan="5">13 <strong>Y</strong>-0 <strong>N</strong>; Motion passed.</td></tr>
<tr><td>x</td><td>[Negative is related and persuasive.] > 1/3</td><td rowspan="2"><strong>Is a technical change recommended? (check one)</strong></td><td>x</td><td><strong>Y</strong></td><td><strong>GO TO "Address by Technical Change Option" subsection</strong></td></tr>
<tr><td></td><td>[Negative is related and not persuasive.] < 2/3</td><td></td><td><strong>N</strong></td><td><strong>GO TO "Final" subsection → (E)</strong></td></tr>
</table>

| | 2/3 ≤ [Negative is related and not persuasive.] < 90% | GO TO "Final" subsection → (C) |
|---|---|---|

**Technical Change Recommendations**
**Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.**

<table>
<tr><td rowspan="2"><strong>Address by Technical Change Option</strong></td><td rowspan="2"><strong>Technical Changes</strong></td><td rowspan="2">1</td><td colspan="4"><strong>FROM: Section/Paragraph SEMI E132 –Table 43 - EstablishSession Parameter Definitions</strong><br><br><strong>Table 43 EstablishSession Parameter Definitions</strong></td></tr>
</table>

**FROM: Section/Paragraph SEMI E132 –Table 43 - EstablishSession Parameter Definitions**

**Table 43 EstablishSession Parameter Definitions**

| Parameter | Description | Kind | Form |
|---|---|---|---|
| error | Authentication failure<br>This includes when<br>• the clientId does not match an ACLEntry and guest session is not supported<br>• challengeHash value does not match the expected value<br>• challenge token was not requested | error | Text, shall be the text "ClientId failed authentication".<br><br>For security reasons, no additional information describing why authentication failed is required. |

**TO: Section/Paragraph SEMI E132 –Table 43 - EstablishSession Parameter Definitions**

**Table 43 EstablishSession Parameter Definitions**

| Parameter | Description | Kind | Form |
|---|---|---|---|
| error | Authentication failure<br>This includes when<br>• the clientId does not match an ACLEntry and guest session is not supported<br>• ~~challengeHash~~ challengePasswordHash value does not match the expected value<br>• challenge token was not requested | error | Text, shall be the text "ClientId failed authentication".<br><br>For security reasons, no additional information describing why authentication failed is required. |

**Justification (If necessary)**
**This change updates the authentication error description with the correct EstablishSession() parameter when describing when an authentication failure could occur.**

| **Motion** | Negative is addressed by the technical change(s). |
|---|---|
| **Motion by/2nd by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated |
| **Discussion** | None |

| **Result of Vote (check one)** | 12 Y-0 N; Motion passed. | |
|---|---|---|
| | x  2/3 ≤ [Negative is addressed by the technical change(s).] | GO TO "Incorporation of the Technical Change" subsection |
| | [Negative is not addressed by the technical change(s).] < 2/3 | GO TO "Final" subsection → (E) |

| **Motion** | To incorporate the technical change(s). |
|---|---|

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| | | | | | |
|---|---|---|---|---|---|
| **Motion by/2ⁿᵈ by** | | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | | | |
| **Discussion** | | None | | | |
| **Result of Vote**<br>**(check one)** | | 14 **Y**-0 **N**; Motion passed. | | | |
| | | X | 90% ≤ [Agree to incorporate.] | | GO TO "Final" subsection → (F) |
| | | | [Disagree to incorporate.] >10% | | GO TO "Final" subsection → (E) |

| | | | | | |
|---|---|---|---|---|---|
| **Final** | **(check one)** | | **(B)** | Not related | |
| | | | **(C)** | Related and not persuasive | |
| | | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | | x | **(F)** | Addressed by technical change | |
| | **(check if applicable)** | | | Comment generated. See Section V-(ii) Comment # X. | |

# Technical Change #3 (3a-3d)

| | | |
|---|---|---|
| **Technical Issue** | **Origin** | *TF/TC Chapter to choose<br>Comment #2-7, #2-8 (Voter: Mochizuki, Tadashi (TEL)) / Comment to be addressed with Technical Changes |
| | **Referenced Section/ Paragraph** | *TF/TC Chapter to fill in including text in the ballot as appropriate. |
| | | **Comment #2-7**<br><br>**Referenced Section/Paragraph:** *.proto files - message SessionUsageStreamRequest*<br>**Comment Text:**<br>*By deleting SessionPingQueryType SessionPingQueryToServer in Request, it is necessary to decrement the subsequent field number by 1.*<br>*i.e., SessionPingAnswerFromReceiver = 1;*<br><br>**Comment #2-8**<br>**Referenced Section/Paragraph:** *.proto files - message SessionUsageStreamResponse*<br>**Comment Text:**<br>**By deleting SessionPingAnswerType in Result, it is necessary to decrement the subsequent field number by 1.**<br>**i.e., SessionEstablishedNotification = 1;**<br>**SessionFrozenNotification = 2;** |
| | **Reason** | *Original Comment text, if applicable, and problem statement, including justification and suggestion, should be copied. |
| | | **Discussion**<br><br>**From a Protocol Buffers point of view, it is not required that field numbers are in sequential order without gaps. For example, if a field is depreciated and removed, you wouldn't change the field numbers as it would break backwards compatibility if someone was using an older .proto file.**<br><br>**Since these .proto files have not been rolled out in production yet, and we already have a ratification ballot to address other technical changes, we can correct this issue now. (both the Complementary File and Supplemental File)** |

| | | | | |
|---|---|---|---|---|
| **Handle technical issue identified above as a Negative.** | | | | |
| | **Motion and Reason** | x | 'Related' is mutually agreed upon. **(Needs no motion.)** | GO TO "Persuasive" subsection |

| | | | | |
|---|---|---|---|---|
| | **(check one)** | ☐ | Negative is not related and assigned to TF. **(Needs ≥2/3 votes to pass.)** | |
| | | ☐ | Negative is not related and placed on agenda of current TC Chapter meeting as new business. **(Needs ≥2/3 votes to pass.)** | |
| | | ■ | Reason | XXXX |
| | **Motion by/ 2nd by** | Name (Company)/Name (Company) | | |
| | **Discussion** | | | |
| | **Result of Vote (check one)** | XX **Y**-XX **N**; Motion passed/failed. | | |
| | | ☐ | [Negative is not related.] <2/3 | **GO TO "Persuasive" subsection** |
| | | ☐ | 2/3 ≤ [Negative is not related] and assigned to TF. | **GO TO "Final" subsection → (B)** |
| | | ☐ | 2/3 ≤ [Negative is not related] and placed on agenda of current TC Chapter meeting as new business. | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Persuasive** | **Motion and Reason (check one)** | x | Negative is related and persuasive. **(Needs >1/3 votes to pass.)** | | | | |
| | | ☐ | Negative is related and not persuasive. **(Needs ≥2/3 votes to pass.)** | | | | |
| | | ■ | Reason | Since these .proto files have not been rolled out in production yet, and we already have a ratification ballot to address other technical changes, we can correct this issue now. (both the Complementary File and Supplemental File) | | | |
| | **Motion by/ 2nd by** | By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated | | | | | |
| | **Discussion** | None | | | | | |
| | **Result of Vote (check one)** | 10 **Y**-0 **N**; Motion passed. | | | | | |
| | | x | [Negative is related and persuasive.] > 1/3 | **Is a technical change recommended? (check one)** | x | **Y** | **GO TO "Address by Technical Change Option" subsection** |
| | | ☐ | [Negative is related and not persuasive.] < 2/3 | | ☐ | **N** | **GO TO "Final" subsection → (E)** |
| | | ☐ | 2/3 ≤ [Negative is related and not persuasive.] < 90% | **GO TO "Final" subsection → (C)** | | | |

| | | | |
|---|---|---|---|
| **Address by Technical Change Option** | **Technical Change Recommendations** **Original section/paragraph number and at least one full sentence are required in "FROM" and "TO" fields.** | | |
| | **Technical Changes** | 1 | **FROM: Section/Paragraph Complementary File - SEMIE132-02-Ballot7002.proto Protocol Buffers Message: SessionUsageStreamRequest** SessionPingAnswerType SessionPingAnswerFromReceiver = 2; |
| | | | **TO: Section/Paragraph Complementary File - SEMIE132-02-Ballot7002.proto Protocol Buffers Message: SessionUsageStreamRequest** SessionPingAnswerType SessionPingAnswerFromReceiver = 2̶1; |
| | | | **Justification (If necessary)** |

| | | |
|---|---|---|
| | **2** | **FROM: Section/Paragraph Supplemental File - SEMIE132-02-Ballot7002-helper.proto**<br>**Protocol Buffers Message: SessionUsageStreamRequest**<br><br>SessionPingAnswerType SessionPingAnswerFromReceiver = 2; |
| | | **TO: Section/Paragraph Supplemental File - SEMIE132-02-Ballot7002-helper.proto**<br>**Protocol Buffers Message: SessionUsageStreamRequest**<br><br>SessionPingAnswerType SessionPingAnswerFromReceiver = ~~2~~1; |
| | | **Justification (If necessary)** |
| | **3** | **FROM: Complementary File - SEMIE132-02-Ballot7002.proto**<br>**Protocol Buffers Message: SessionUsageStreamResponse**<br><br>SessionEstablishedNotificationType SessionEstablishedNotification = 2;<br>SessionFrozenNotificationType SessionFrozenNotification = 3;<br>SessionClosedNotificationType SessionClosedNotification = 4;<br>SessionPingQueryType SessionPingQueryToReceiver = 5;<br>InitiateChangeSessionEndpointCompleteNotificationType<br>InitiateChangeSessionEndpointCompleteNotification = 6;<br>SessionEndpointChangedNotificationType SessionEndpointChangedNotification = 7;<br>AclPasswordChangedNotificationType AclPasswordChangedNotification = 8;<br><br>**TO: Complementary File - SEMIE132-02-Ballot7002.proto**<br>**Protocol Buffers Message: SessionUsageStreamResponse**<br><br>SessionEstablishedNotificationType SessionEstablishedNotification = ~~2~~1;<br>SessionFrozenNotificationType SessionFrozenNotification = ~~3~~2;<br>SessionClosedNotificationType SessionClosedNotification = ~~4~~3;<br>SessionPingQueryType SessionPingQueryToReceiver = ~~5~~4;<br>InitiateChangeSessionEndpointCompleteNotificationType<br>InitiateChangeSessionEndpointCompleteNotification = ~~6~~5;<br>SessionEndpointChangedNotificationType SessionEndpointChangedNotification = ~~7~~6;<br>AclPasswordChangedNotificationType AclPasswordChangedNotification = ~~8~~7; |

| | | | |
|---|---|---|---|
| | **4** | **FROM: Supplemental File - SEMIE132-02-Ballot7002-helper.proto**<br>**Protocol Buffers Message: SessionUsageStreamResponse**<br><br>SessionEstablishedNotificationType SessionEstablishedNotification = 2;<br>SessionFrozenNotificationType SessionFrozenNotification = 3;<br>SessionClosedNotificationType SessionClosedNotification = 4;<br>SessionPingQueryType SessionPingQueryToReceiver = 5;<br>InitiateChangeSessionEndpointCompleteNotificationType<br>InitiateChangeSessionEndpointCompleteNotification = 6;<br>SessionEndpointChangedNotificationType SessionEndpointChangedNotification = 7;<br>AclPasswordChangedNotificationType AclPasswordChangedNotification = 8;<br><br>**TO: Supplemental File - SEMIE132-02-Ballot7002-helper.proto**<br>**Protocol Buffers Message: SessionUsageStreamResponse**<br><br>SessionEstablishedNotificationType SessionEstablishedNotification = ~~2~~1;<br>SessionFrozenNotificationType SessionFrozenNotification = ~~3~~2;<br>SessionClosedNotificationType SessionClosedNotification = ~~4~~3;<br>SessionPingQueryType SessionPingQueryToReceiver = ~~5~~4;<br>InitiateChangeSessionEndpointCompleteNotificationType<br>InitiateChangeSessionEndpointCompleteNotification = ~~6~~5;<br>SessionEndpointChangedNotificationType SessionEndpointChangedNotification = ~~7~~6;<br>AclPasswordChangedNotificationType AclPasswordChangedNotification = ~~8~~7; | | |

| **Motion** | Negative is addressed by the technical change(s). | |
|---|---|---|
| **Motion by/2<sup>nd</sup> by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | |
| **Discussion** | None | |

| **Result of Vote (check one)** | 10 **Y**-0 **N**; Motion passed. | | |
|---|---|---|---|
| | x | 2/3 ≤ [Negative is addressed by the technical change(s).] | **GO TO "Incorporation of the Technical Change" subsection** |
| | | [Negative is not addressed by the technical change(s).] < 2/3 | **GO TO "Final" subsection → (E)** |

| | **Motion** | To incorporate the technical change(s). | | |
|---|---|---|---|---|
| **Incorporation of the Technical Change** | **Motion by/2<sup>nd</sup> by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated | | |
| | **Discussion** | None | | |
| | **Result of Vote (check one)** | 12 **Y**-0 **N**; Motion passed. | | |
| | | x | 90% ≤ [Agree to incorporate.] | **GO TO "Final" subsection → (F)** |
| | | | [Disagree to incorporate.] >10% | **GO TO "Final" subsection → (E)** |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Final** | **(check one)** | | | **(B)** | Not related | |
| | | | | **(C)** | Related and not persuasive | |
| | | | | **(E)** | Related and persuasive and not addressed by technical change | **DOCUMENT FAILS** |
| | | x | | **(F)** | Addressed by technical change | |
| | **(check if applicable)** | | | | Comment generated. See Section V-(ii) Comment # X. | |

# V. Comments

## V- (i) Voters' Comments
### Commenter 1 (Hyungsu Kim / Doople) - Comment 1

<table>
<tr><td rowspan="2"><strong>Comment</strong></td><td colspan="2"><strong>*TF/TC Chapter to fill in section/paragraph #, if necessary.</strong></td></tr>
<tr><td colspan="2"><strong>How to change a password through SecurityAdmin?<br>Is there no need for a password when deleting ACL?</strong></td></tr>
<tr><td rowspan="7"><strong>Action</strong></td><td colspan="2"><strong>The TC Chapter agreed to do one of the following actions.</strong></td></tr>
<tr><td colspan="2"><strong>*No motion is required in this step.</strong></td></tr>
<tr><td></td><td>Already addressed by Commenter #, Comment #</td></tr>
<tr><td>x</td><td>No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td>Refer to the TF for more consideration.</td></tr>
<tr><td></td><td>New Business</td></tr>
<tr><td></td><td>Editorial Change</td></tr>
</table>

### Commenter 1 (Hyungsu Kim / Doople) - Comment 2

<table>
<tr><td rowspan="2"><strong>Comment</strong></td><td colspan="2"><strong>*TF/TC Chapter to fill in section/paragraph #, if necessary.</strong></td></tr>
<tr><td colspan="2"><strong>I recommend Terminology for Salt Value and Plaintext to be added.</strong></td></tr>
<tr><td rowspan="7"><strong>Action</strong></td><td colspan="2"><strong>The TC Chapter agreed to do one of the following actions.</strong></td></tr>
<tr><td colspan="2"><strong>*No motion is required in this step.</strong></td></tr>
<tr><td></td><td>Already addressed by Commenter #, Comment #</td></tr>
<tr><td>x</td><td>No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td>Refer to the TF for more consideration.</td></tr>
<tr><td></td><td>New Business</td></tr>
<tr><td></td><td>Editorial Change</td></tr>
</table>

### Commenter 2 (Tadashi Mochizuki / TEL) - Comment 1

<table>
<tr><td rowspan="2"><strong>Comm</strong></td><td colspan="2"><strong>*TF/TC Chapter to fill in</strong></td></tr>
<tr><td colspan="2"><strong><em>9.2.3 and 9.2.4 are the same sentence</em></strong></td></tr>
<tr><td rowspan="5"><strong>Action</strong></td><td colspan="2"><strong>The TC Chapter agreed to do one of the following actions.</strong></td></tr>
<tr><td colspan="2"><strong>*No motion is required in this step.</strong></td></tr>
<tr><td></td><td>Already addressed by Commenter #, Comment #</td></tr>
<tr><td></td><td>No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td>Refer to the TF for more consideration.</td></tr>
</table>

| | | | |
|---|---|---|---|
| | | New business | |
| | x | Editorial change | |
| | Options for editorial change **(check one)** | | **Case 1: No vote in this section:** |
| | | | **To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.** |
| | | | **Case 2: Voted in this section:** |
| | | x | **Original section number and at least one full sentence are required in "FROM" and "TO" fields.** |

| Editorial Changes | 1 | **FROM: Section/Paragraph 9.2.4**<br><br>**9.2.3 Subordinate Standards capture when and how the SessionID should be hashed to protect it when it is transmitted.**<br><br>**9.2.4 Subordinate Standards capture when and how the SessionID should be hashed to protect it when it is transmitted.** |
|---|---|---|
| | | **TO: Section/Paragraph 9.2.4**<br><br>**9.2.3 Subordinate Standards capture when and how the SessionID should be hashed to protect it when it is transmitted.**<br><br>~~9.2.4 Subordinate Standards capture when and how the SessionID should be hashed to protect it when it is transmitted.~~ |
| | | **Justification (If necessary)**<br><br>Section 9.2.4 is a duplicate of Section 9.2.3 |

| Motion | To approve above editorial change(s) |
|---|---|
| Motion by/2nd by | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated |
| Discussion | None |
| Vote | 12 **Y**-0 **N**; Motion passed. |

## Commenter 2 (Tadashi Mochizuki / TEL) - Comment 2

| Comment | **\*TF/TC Chapter to fill in** |
|---|---|
| | *Comment 2-3 Mochizuki, Tadashi (TEL)*<br><br>*Referenced Section/Paragraph: 13.2.6.6*<br>**the end sentence of the first " · ".**<br><br>**Need to change from 'Specified endpoint is invalid' to 'The specified endpoint is invalid'** |

| Action | **The TC Chapter agreed to do one of the following actions.** | |
|---|---|---|
| | **\*No motion is required in this step.** | |
| | | Already addressed by Commenter #, Comment # |
| | | No further action was taken by the TC Chapter. |
| | | Refer to the TF for more consideration. |
| | | New business |

| | | | | |
|---|---|---|---|---|
| | x | Editorial change | | |

<table>
<tr><td rowspan="3" style="background:black"></td><td rowspan="3">Options for editorial change <strong>(check one)</strong></td><td></td><td><strong>Case 1: No vote in this section:</strong></td></tr>
<tr><td></td><td>To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.</td></tr>
<tr><td>x</td><td><strong>Case 2: Voted in this section:</strong><br>Original section number and at least one full sentence are required in "FROM" and "TO" fields.</td></tr>
</table>

| Editorial Changes | 1 | **FROM: Section/Paragraph 13.2.6.7**<br><br>If the implementation is using a connection-oriented protocol, the connection to the new endpoint shall be successful for the operation to be successful. Otherwise the request is rejected with error 'Specified endpoint is invalid' |
|---|---|---|
| | | **TO: Section/Paragraph 13.2.6.7**<br><br>If the implementation is using a connection-oriented protocol, the connection to the new endpoint shall be successful for the operation to be successful. Otherwise the request is rejected with error 'The S~~s~~pecified endpoint is invalid' |
| | | **Justification (If necessary)**<br><br>The error identifier is missing text 'The'. Spelling error. |

| Motion | To approve above editorial change(s) |
|---|---|
| **Motion by/2<sup>nd</sup> by** | By: Albert Fuchigami / PEER Group Inc.<br>Second: James Moyne / Applied Materials, Inc. |
| **Discussion** | None |
| **Vote** | 12 **Y**-0 **N**; Motion passed. |

## Commenter 2 (Tadashi Mochizuki / TEL) - Comment 3

| Comment | *TF/TC Chapter to fill in |
|---|---|
| | *Comment 2-5 Mochizuki, Tadashi (TEL)*<br><br>*Section/Paragraph SEMI E132.2, Table 8*<br><br>**Sessionidhash of MetaData.Key, etc. must all start with lowercase letters. (example, change from Sessionidhash to sessionidhash.)** |

<table>
<tr><td rowspan="7">Action</td><td colspan="2"><strong>The TC Chapter agreed to do one of the following actions.</strong></td></tr>
<tr><td colspan="2">*No motion is required in this step.</td></tr>
<tr><td></td><td>Already addressed by Commenter #, Comment #</td></tr>
<tr><td></td><td>No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td>Refer to the TF for more consideration.</td></tr>
<tr><td></td><td>New business</td></tr>
<tr><td>x</td><td>Editorial change</td></tr>
</table>

| | Options for editorial change **(check one)** | | Case 1: No vote in this section: | |
|---|---|---|---|---|
| | | | **To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.** | |
| | | | Case 2: Voted in this section: | |
| | | x | **Original section number and at least one full sentence are required in "FROM" and "TO" fields.** | |

**Editorial Changes** — **1**

Section/Paragraph **SEMI E132.2, Table 8**

| From | To |
|---|---|
| Sessionidhash | sessionidhash |
| Clientidhash | clientidhash |
| Source | source |
| Code | code |
| Description | description |
| Extension | extension |

**Justification (If necessary)**

The metadata keys need to be lower case. This is consistent how other metadata keys for exception information is defined.

| Motion | To approve above editorial change(s) |
|---|---|
| Motion by/2<sup>nd</sup> by | By: Albert Fuchigami / PEER Group Inc.<br>Second: Brian Rubow / Cimetrix Incorporated |
| Discussion | None |
| Vote | 12 **Y**-0 **N**; Motion passed. |

## Commenter 2 (Tadashi Mochizuki / TEL) - Comment 4

**Comment**

**\*TF/TC Chapter to fill in section/paragraph #, if necessary.**

*Comment 2-6 Mochizuki, Tadashi (TEL)*

*Referenced Section/Paragraph:    SEMI E132.2, Related Information 3, R3-8.7*

**The first " · " sentence has the text "notifcationRecipient = ClientSessionOnly". Is this sentence correct?**

**Action**

**The TC Chapter agreed to do one of the following actions.**

**\*No motion is required in this step.**

| | Already addressed by Commenter #, Comment # |
|---|---|

| | | |
|---|---|---|
| | x | No further action was taken by the TC Chapter. |
| | | Refer to the TF for more consideration. |
| | | New Business |
| | | Editorial Change |

## Commenter 3 (Tomoko Suzuki / Daifuku) - Comment 1

| | | |
|---|---|---|
| **Comment** | **\*TF/TC Chapter to fill in section/paragraph #, if necessary.** | |
| | *There are some numbers for sections (or notes) not updated.* | |
| **Action** | **The TC Chapter agreed to do one of the following actions.** | |
| | **\*No motion is required in this step.** | |
| | | Already addressed by Commenter #, Comment # |
| | x | No further action was taken by the TC Chapter. |
| | | Refer to the TF for more consideration. |
| | | New Business |
| | | Editorial Change |

## Commenter 4 (Sehoon Kim / Wonik) - Comment 1

| | | |
|---|---|---|
| **Comment** | **\*TF/TC Chapter to fill in section/paragraph #, if necessary.** | |
| | *I don't think Freeze3 needs more security-related checks than Freeze2.*<br>*Most Interface-A operates in the intranet* | |
| **Action** | **The TC Chapter agreed to do one of the following actions.** | |
| | **\*No motion is required in this step.** | |
| | | Already addressed by Commenter #, Comment # |
| | x | No further action was taken by the TC Chapter. |
| | | Refer to the TF for more consideration. |
| | | New Business |
| | | Editorial Change |

## Commenter 5 (Mitch Sakamoto / Zama Consulting) - Comment 1

| | |
|---|---|
| | **\*TF/TC Chapter to fill in section/paragraph #, if necessary.** |

<table>
<tr><td rowspan="2">Comment</td><td colspan="3"><em>Referenced Section/Paragraph: 13.2.3.4.3</em><br><br><em>Comment Text:</em><br><em>Reference: 13.2.3.4.3 If the specified equipmentId and clientId do not correspond to an ACL Entry and guest session is not supported, a new salt value is created for this combination and returned. Subsequent calls to this operation with this equipmentId and clientId combination shall return the same salt value (at least until the Equipment Server is restarted) to avoid informing the caller that the equipmentId and clientId combination is not valid.</em><br><em>Comment: The paragraph describes;</em><br><em>(1) When no guest session is allowed and there is no client ID on the ACL</em><br><em>(2) The client requested Get-Equipment-Information to get the salt value and the challenge taken</em><br><em>(3) The equipment generates a new salt value S1 to send to the client, while the challenge token is not defined to be generated.</em><br><em>(4) The client requests again</em><br><em>(5) The equipment sends the salt value S1</em><br><em>The equipment does not indicate that the request is denied. So the client may not understand that error. Why the error has not been defined for this?</em></td></tr>
</table>

<table>
<tr><td rowspan="7">Action</td><td colspan="3">The TC Chapter agreed to do one of the following actions.</td></tr>
<tr><td colspan="3" style="color:orange">*No motion is required in this step.</td></tr>
<tr><td></td><td colspan="2">Already addressed by Commenter #, Comment #</td></tr>
<tr><td>x</td><td colspan="2">No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td colspan="2">Refer to the TF for more consideration.</td></tr>
<tr><td></td><td colspan="2">New Business</td></tr>
<tr><td></td><td colspan="2">Editorial Change</td></tr>
</table>

## Commenter 5 (Mitch Sakamoto / ZAMA Consulting) - Comment 2

<table>
<tr><td rowspan="2">Comment</td><td colspan="3" style="color:orange">*TF/TC Chapter to fill in</td></tr>
<tr><td colspan="3"><em>Comment 5-2 Sakamoto, Mitsune (Zama Consulting)</em><br><br><strong>Referenced Section/Paragraph: 13.2.3.5</strong><br><strong>Comment Text:</strong><br><strong>Reference: 13.2.3.5 Change ACL Password</strong><br><strong>Comment: Should be renumbered as 13.2.4 to align the paragraph level to the other operations</strong></td></tr>
</table>

<table>
<tr><td rowspan="9">Action</td><td colspan="4">The TC Chapter agreed to do one of the following actions.</td></tr>
<tr><td colspan="4" style="color:orange">*No motion is required in this step.</td></tr>
<tr><td></td><td colspan="3">Already addressed by Commenter #, Comment #</td></tr>
<tr><td></td><td colspan="3">No further action was taken by the TC Chapter.</td></tr>
<tr><td></td><td colspan="3">Refer to the TF for more consideration.</td></tr>
<tr><td></td><td colspan="3">New business</td></tr>
<tr><td>x</td><td colspan="3">Editorial change</td></tr>
<tr><td rowspan="2" style="background:black"></td><td rowspan="2">Options for editorial</td><td colspan="2"><strong>Case 1: No vote in this section:</strong></td></tr>
<tr><td colspan="2" style="color:orange"><strong>To be included and voted on as a group in § VI. Editorial Changes Other than Those Voted on in § V.</strong></td></tr>
<tr><td></td><td></td><td>x</td><td><strong>Case 2: Voted in this section:</strong></td></tr>
</table>

| | | change (check one) | | Original section number and at least one full sentence are required in "FROM" and "TO" fields. |
|---|---|---|---|---|
| Editorial Changes | 1 | Section/Paragraph **SEMI E132** **From:** 13.2.3.5 ChangeACLPassword **To:** ~~13.2.3.5~~ 13.2.4 ChangeACLPassword | | |
| | | Justification **(If necessary)** ChangeACLPassword is an operation on the SessionManager interface and should be at the same section numbering level as other SessionManager interface operations. The rest of the numbered items related to ChangeACLPassword will be updated accordingly. | | |

| Motion | To approve above editorial change(s) |
|---|---|
| Motion by/2<sup>nd</sup> by | By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated |
| Discussion | None |
| Vote | 13 **Y**-0 **N**; Motion passed. |

## V-(ii) Comments Created by Handling Negative
None

# VI. Editorial Changes Other than Those Voted on in § V
None

# VII. Approval Conditions Check

## VII. - (i). Approval Rate

APPROVAL CONDITION 1: All Negatives have been discussed and were withdrawn, found not related, found not persuasive, or addressed by a technical change. (*Regulations* ¶ 9.6.2.1.2)

APPROVAL CONDITION 2: At least 90% of the sum of valid Voting Interest Accept and Voting Interest Reject Votes must be Accept. (*Regulations* ¶ 9.6.2.1.3)

Note: If both approval conditions are not satisfied, the Document fails.

| | | Accepts | | (Accepts + Valid Rejects) | | | |
|---|---|---|---|---|---|---|---|
| Approval Rate | = | 57 | / | 57 | = | 100.0% | ≥90% |

## VII. – (ii) Approval Level (check one)

Note: See *Regulations* § 9.6.2 for further information.

| | |
|---|---|
| | **Globally Approved (No Ratification Ballot needed):** The Letter Ballot meets the Letter Ballot approval conditions for the global technical committee. |
| **X** | **Need a Ratification Ballot:** The Letter Ballot meets the Letter Ballot approval conditions for the TC Chapter and a Ratification Ballot will be issued to validate technical changes. |

## VIII. Safety Check

Note: See *Regulations* § 15 for further information.

| | | |
|---|---|---|
| **Motion** | **x** | **This is not a Safety Document**, when all safety-related information is removed, the Document is still technically sound and complete. (*Regulations* ¶ 8.7.1) |
| | | **This is a Safety Document**, when all safety-related information is removed, the Document is not technically sound and complete. (*Regulations* ¶ 8.7.2) |
| | | Safety Checklist (*Regulations* ¶ 15.3) is complete and has been included with the Document throughout the balloting process. (*Regulations* ¶ 15.1.2) |
| **Motion by/2nd by** | | By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated |
| **Discussion** | | None |
| **Vote** | | 14 **Y**-0 **N**; Motion passed |

## IX. Intellectual Property (IP) Check

Note: This Letter Ballot may cover all or part of a Standard or Safety Guideline. Regardless of the coverage, this IP check applies to the entire Standard or Safety Guideline*. See *Regulations* § 16 for further information.

| x | The TC Chapter meeting chair asked those participating, if they were aware of any patented technology that might be relevant (see *Regulations* ¶ 16.3.1.1) to the Standard or Safety Guideline; or, any copyrighted items or trademarks that are used/reproduced (see *Regulations* ¶ 16.4.1.2) in the Standard or Safety Guideline. (Also see, *Regulations* § 8.8) | | | | |
|---|---|---|---|---|---|
| | | The question is NOT answered in affirmative (No potentially material patented technology or use/reproduction of copyrighted items/trademarks is known.) | **GO TO SECTION X.** | | |
| | x | The question is answered in affirmative | Is any of the known IPs a patented technology? | **x** **Yes, at least one of them is a patented technology** | **GO TO IX (a) "Patented Technology" subsection** |

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| | | | | | No | GO TO **IX (b)** **"Copyright items" subsection** |
|---|---|---|---|---|---|---|

## IX(a) Patented Technologies subsection

### IX(a1) Total numbers of Patented Technologies to be dealt with

| **1** **Fill number** | **(I)** Known Patented Technology that might be relevant to the Standard/Safety Guideline | **0** **Fill number** | **(m)** Number of patented technologies first became known to the TC Chapter on or after the day of the issuance of this Letter Ballot | **Postpone assessment of such patented technologies to be performed at the next scheduled TC Chapter meeting.** |
|---|---|---|---|---|
| | | **1** **Fill number** | **(n)** Number of patented technologies first became known to the TC Chapter before the day of the issuance of this Letter Ballot | **GO TO IX (a2)** |

### IX(a2) Assessment of disclosed patented technologies

| **Disclosed patented technology #1** | |
|---|---|
| Asyst Patent Application <br> Mutli-protocol multi-client equipment server <br> Automation Job Management <br> Automated tool management in a multi-protocol environment <br> Apparatus and method for web-based tool management <br><br> NON-ASSERTION AGREEMENT (LOA) between SEMI and Asyst Technologies has been signed with for US Patents #11/340101, #11/107508, #09/899833, and 09/496009, in 2008. | **Date of Assessment** **(If different from the date of Letter Ballot adjudication)** <br> 12/1/2007 |

| Is disclosed patented technology #1 found to be "might be material" to the Standard/Safety Guideline? | **x** | YES (It is a PMPT) | Is the use of this PMPT technically justified? | **x** | **YES** | **PROCEED to assess NEXT one, or** **if this is the last one, GO TO IX(a3)** |
|---|---|---|---|---|---|---|
| | | | | | **NO** | **The Document is failed and returned to the TF** |
| | | NO | No further action is needed for patented technology #1 | | | |

*This table is needed for each disclosed patented technology.*

### IX(a3) LOA status check of PMPT of which inclusion assessed to be justified

| **LOA Status of PMPT #1** | | | | | |
|---|---|---|---|---|---|
| Has an LOA for this patented technology been received from every owner ? | **x** | YES | **PROCEED to check NEXT one,** **or if this is the last one, GO TO IX(b)** | | |
| | | NO | MOTIO | | Ask ISC for special permission to publish. |
| | | | | | Quit activity. **The Document is failed and returned to the TF** |

| | | | | Wait for LOA | **PROCEED to check NEXT one, or if this is the last one, GO TO IX(b1)** |
|---|---|---|---|---|---|
| | | **Motion by/ 2nd by** | | | Name (Company)/Name (Company) |
| | | **Discussion** | | | XXXX |
| | | **Vote** | | | XX **Y**-XX **N**; Motion passed (or failed) |

*This table is needed for each PMPT of which inclusion assessed to be justified.*

## IX(b1) Total numbers of copyrighted items to be dealt with

| 0 Fill number | **(o)** Known copyrighted items that are used or reproduced to the Standard/Safety Guideline | | **o > 0** There is at least one known copy righted items that might be relevant to the Standard/Safety Guideline | **GO TO IX (b2)** |
|---|---|---|---|---|
| | | x | **o = 0** There is no disclosed copyrighted item | **GO TO IX (c)** |

## IX(b2) Assessment of disclosed copyrighted items

| **Disclosed copyrighted item #1** | | | | | | |
|---|---|---|---|---|---|---|
| (*Brief description of its use in the Document*): | | | | | | |
| Is disclosed copyrighted item #1 used or reproduced in the Standard/Safety Guideline? | | YES | Is the use/reproduction of this copyrighted item technically justified? | | YES | **PROCEED to assess NEXT one, or if this is the last one, GO TO IX(b3)** |
| | | | | | NO | **The Document is failed and returned to the TF** |
| | | NO | No further action is needed for copyrighted item #1 | | | |

*This table is needed for each disclosed copyrighted item.*

## IX(b3) Copyright release status check of copyrighted item of which inclusion assessed to be justified

| **Copyright release Status of copyrighted item #1** | | | | | | |
|---|---|---|---|---|---|---|
| Has the copyright release been received from its owner ?. | | YES | **PROCEED to assess NEXT one, or if this is the last one, GO TO IX(c)** | | | |
| | | NO | MOTION | | Ask ISC for special permission to publish. | |
| | | | | | Quit activity. | **The Document is failed and returned to the TF** |
| | | | | | Wait for copyright release letter | **PROCEED to check NEXT one, or if this is the last one, GO TO IX(c)** |
| | | **Motion by/ 2nd by** | | | Name (Company)/Name (Company) | |
| | | **Discussion** | | | XXXX | |
| | | **Vote** | | | XX **Y**-XX **N**; Motion passed (or failed) | |

*This table is needed for each copyrighted item of which use/reproduction assessed to be justified.*

**IX(c) Assessment of disclosed (identified) trademark**

| Is there any trademark in the Standard/Safety Guideline? | x | YES | Is every instance of trademark use technically justified? | x | YES | **GO TO** IX(d) |
|---|---|---|---|---|---|---|
| | | | | | NO | **The Document is failed and returned to the TF** |
| | | NO | **GO TO IX(d)** | | | |

**IX(d) IP check completion condition check**

| The co-chair checks if any Patented Technologies first become known to the TC Chapter on or after the day of the issuance of this Letter Ballot? i.e., m>0 in IX(a1) | | YES | **Sections IX(a2) and IX(a3) shall be completed and recorded for such patented technologies at next scheduled meeting of the TC Chapter. Until then, the TC Chapter shall NOT go to** X (making motion to pass/fail this Document) **(see *Regulations* ¶ 16.4.1.2) Until then this Letter Ballot Review is on hold.** |
|---|---|---|---|
| | x | NO | **GO TO X** |

# X. Action for This Document

| Motion | | This Document passed TC Chapter review as balloted and will be forwarded to the ISC A&R SC for procedural review. |
|---|---|---|
| | | This Document passed TC Chapter review with editorial changes and will be forwarded to the ISC A&R SC for procedural review. |
| | x | This Document passed TC Chapter review with technical changes and with or without editorial changes and will be forwarded to the ISC A&R SC for procedural review. A Ratification Ballot will be issued to verify the technical changes. |
| | | This Document failed TC Chapter review and will be returned to the TF for rework. |
| | | This Document failed TC Chapter review and work will be discontinued. |
| **Motion by/ 2nd by** | | By: Albert Fuchigami / PEER Group Inc. Second: Brian Rubow / Cimetrix Incorporated |
| **Discussion** | | None |
| **Vote** | | 13 Y-0 N |
| **Final Action** | x | Motion passed |
| | | Motion failed |

**Note: If the use of PMPT or copyrighted item is justified by the TC Chapter, LOA or release form must be received before publication can proceed.**