

JCP 2: Process Document

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5 Comments to: pmo@jcp.org

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7 CONTENTS

8

I	EXECUTIVE SUMMARY	2
II	DEFINITIONS	2
III	THE JAVA COMMUNITY PROCESS SM PROGRAM	6
0.	GENERAL PROCEDURES.....	6
0.0	EXPERT GROUP TRANSPARENCY.....	6
0.1	EXPERT GROUP MEMBERSHIP.....	7
0.2	JSR DEADLINES.....	8
0.3	COMPATIBILITY TESTING.....	8
0.4	EXECUTIVE COMMITTEE DUTIES.....	8
0.5	PMO RESPONSE TIMES.....	9
0.6	ESCALATION AND APPEALS.....	9
1.	INITIATE A NEW OR REVISED SPECIFICATION	9
1.0	INITIATE A JAVA SPECIFICATION REQUEST.....	9
1.1	JSR REVIEW	10
1.2	JSR APPROVAL BALLOT	11
1.3	FORM THE EXPERT GROUP	11
2.	DRAFT RELEASES.....	11
2.0	WRITE THE FIRST DRAFT OF THE SPECIFICATION	11
2.1	EARLY DRAFT REVIEW	12
2.2	PUBLIC REVIEW	12
2.3	PUBLIC DRAFT SPECIFICATION APPROVAL BALLOT	12
3.	FINAL RELEASE.....	13
3.0	PROPOSED FINAL DRAFT	13
3.1	FINAL APPROVAL BALLOT	13
3.2	FINAL RELEASE	14
4.	MAINTENANCE.....	14
4.0	MAINTENANCE LEAD RESPONSIBILITIES.....	14
4.1	MAINTENANCE REVIEW	15
4.2	MAINTENANCE RELEASE.....	15
5.	EXECUTIVE COMMITTEE POLICIES AND PROCEDURES	16
5.0	SCOPE	16
5.1	MEMBERSHIP	16
5.2	EC DUTIES AND RESPONSIBILITIES	16
5.3	EC SELECTION PROCESS AND LENGTH OF TERM	16
6.	EXECUTIVE COMMITTEE JSR VOTING RULES	18

I EXECUTIVE SUMMARY

The international Java community develops and evolves Java™ technology specifications using the Java Community Process (JCP). The JCP produces high-quality specifications using an inclusive, consensus building approach that produces a Specification, a Reference Implementation (to prove the Specification can be implemented), and a Technology Compatibility Kit (a suite of tests, tools, and documentation that is used to test implementations for compliance with the Specification).

Experience has shown that the best way to produce a technology specification is to gather a group of industry experts who have a deep understanding of the technology in question and then have a strong technical lead work with that group to create a first draft. Consensus around the form and content of the draft is then built using an iterative review process that allows an ever-widening audience to review and comment on the document.

This version of the JCP was developed through the JCP by means of JSR 348, led by Oracle and the combined Executive Committees as the Expert Group.

An Executive Committee (EC) representing a cross-section of both major stakeholders and other members of the Java community is responsible for approving the passage of Specifications through the JCP's various stages and for reconciling discrepancies between Specifications and their associated test suites. There are two ECs: one to oversee the Java technologies for the desktop/server space (with responsibility for the Java SE™ and Java EE™ Specifications) and the other to oversee the Java technologies for the consumer/embedded space (with responsibility for the Java ME™ Specification). The EC's are considering merging the two bodies into a single one in the near future, so newly elected EC members should be aware that their terms may vary from what is specified in section 5.4, "EC SELECTION PROCESS AND LENGTH OF TERM"

There are four major stages in this version of the JCP:

1. **INITIATION:** A Specification targeted at the desktop/server or consumer/embedded space is initiated by community member(s) and approved for development by the responsible EC. A group of experts is formed to assist the Spec Lead with the development of the Specification.
2. **DRAFT RELEASES:** The Expert Group develops the Specification through an iterative process, releasing drafts for public review and comment. After the formal Public Review the EC votes on whether the JSR should proceed to the Final Release stage.
3. **FINAL RELEASE:** The Spec Lead submits the Specification to the PMO for publication as the Proposed Final Draft. When the RI and TCK are completed, and the RI passes the TCK, the Specification, the RI, and the TCK are submitted to the PMO, who circulate them to the responsible EC for final approval.
4. **MAINTENANCE:** The Specification, Reference Implementation, and Technology Compatibility Kit are updated in response to ongoing requests for clarification, interpretation, enhancements, and revisions. The responsible EC reviews proposed changes to the Specification and indicates which can be carried out immediately and which will require the changes to be implemented in a new JSR.

II DEFINITIONS

Appeal Ballot: The EC ballot to override a first-level decision on a TCK test challenge.

Change Log: An area accessible from the JSR Page that lists all changes made to the

51 Specification, RI, TCK, and licenses since the previous release. A Change Log has six
52 sections: PROPOSED (changes not yet made to the Specification), ACCEPTED (changes
53 made to the Specification), DEFERRED (changes to be considered in a new JSR), RI
54 (changes made to the RI), TCK (changes made to the TCK) and LICENSING (changes to
55 the licensing terms)

56 **Dormant Specification (Dormant):** A Specification that does not have an identified
57 Maintenance Lead. All Specifications become Dormant at the end of their life cycles.

58 **Early Draft Review:** A 30 to 90 day period during which the public reviews and comments
59 on the draft Specification.

60 **Elected Seat:** An EC seat filled by the election process described in section 5.3.4.

61 **Executive Committee (EC):** The Members who guide the evolution of the Java
62 technologies. The EC represents a cross-section of both major stakeholders and other
63 Members of the Java Community. EC members are appointed in an annual election
64 process. The EC Policies and Procedures are in the EC Standing Rules, which is a
65 separate document.

66 **Expert:** A Member or Member Representative who has expert knowledge and is an active
67 practitioner in the technology covered by the JSR.

68 **Expert Group (EG):** The group of Experts who develop or make significant revisions to a
69 Specification.

70 **Final Approval Ballot:** The 14-day EC ballot to approve the Final Draft along with its
71 associated RI and TCK.

72 **Final Approval Reconsideration Ballot:** The 14-day EC ballot to reconsider an initial
73 rejection of a Final Draft, RI, and TCK.

74 **Final Draft:** The final draft of the Specification that will be put forward for EC approval.

75 **Final Release:** The final stage in the JSR development process when the Specification,
76 RI, and TCK have been completed and can be licensed by implementors.

77 **First-Level TCK Appeals Process:** The process defined by the Spec Lead that allows
78 implementers of the Specification to appeal one or more tests defined by the
79 Specification's TCK.

80 **Item Exception Ballot:** The EC ballot to determine whether or not to include specific
81 change items in a Maintenance Release.

82 **Java Community Process (JCP):** The formal process described in this document for
83 developing or revising Java technology Specifications.

84 **Java Community Process Member (Member):** A company, organization, or individual
85 that has signed the JSPA and is abiding by its terms.

86 **Java Specification (Specification):** A written specification for some aspect of the Java
87 technology. This includes the language, virtual machine, Platform Editions, Profiles, and
88 application programming interfaces.

89 **Java Specification Request (JSR):** The document submitted to the PMO by one or more
90 Members to propose the development of a new Specification or significant revision to an
91 existing Specification.

92 **Java Specification Participation Agreement (JSPA):** A one-year renewable agreement
93 between Oracle America and a company, organization or individual that allows the latter
94 entities to participate in the Java Community Process.

95 **JCP Web Site:** The web site where anyone can stay informed about JCP activities,
96 download draft and final Specifications, and follow the progress of Specifications through
97 the JCP.

98 **JSR Approval Ballot:** The EC ballot to determine if the JSR should be approved.

99 **JSR Reconsideration Ballot:** The EC ballot to determine if a revised JSR should be
100 approved.

101 **JSR Page:** Each JSR has a dedicated public web page on the JCP Web Site where the
102 JSR's history is recorded and where other relevant information about the JSR is published.

103 **JSR Renewal Ballot:** An EC ballot to confirm that a JSR should continue in its work.

104 **JSR Renewal Reconsideration Ballot:** An EC ballot to determine if a revised JSR should
105 continue its work.

106 **JSR Review:** A 4 week period during which the public can review and comment on a new
107 JSR.

108 **Maintenance Lead (ML):** The Expert responsible for maintaining the Specification.

109 **Maintenance Release:** The final stage in the JSR maintenance process when the
110 Specification, RI, and TCK have been updated and can be licensed by implementors.

111 **Maintenance Review:** A period of at least 30 days prior to finalization of a Maintenance
112 Release when Members and the public consider and comment on the change items listed
113 in the PROPOSED section of the Change Log.

114 **Maintenance Review Ballot:** An EC ballot to determine whether the changes proposed by
115 a Maintenance Lead are appropriate for a Maintenance Release.

116 **Member Representative:** An employee of a Member company or an associate of a
117 Member organization who has been approved by the Member to represent it within the
118 JCP.

119 **Platform Edition Specification (Platform Edition):** A Specification that defines a
120 baseline API set that provides a foundation upon which applications, other APIs, and
121 Profiles can be built. There are currently three Platform Edition Specifications: Java SE,

122 Java EE, and Java ME.

123 **Profile Specification (Profile):** A Specification that references one of the Platform Edition
124 Specifications and zero or more other JCP Specifications (that are not already a part of a
125 Platform Edition Specification). APIs from the referenced Platform Edition must be included
126 according to the referencing rules set out in that Platform Edition Specification. Other
127 referenced Specifications must be referenced in their entirety.

128 **Program Management Office (PMO):** The group within Oracle America that is
129 responsible for administering the JCP and chairing the EC.

130 **Proposed Final Draft:** The version of the draft Specification that will be used as the basis
131 for the RI and TCK.

132 **Public Draft Specification Approval Ballot :** The EC ballot to determine if a draft should
133 proceed after Public Review.

134 **Public Draft Specification Reconsideration Ballot :** The EC ballot to determine if a
135 revised draft should proceed after Public Review.

136 **Public Review:** A 30 to 90 day period when the public can review and comment on the
137 draft Specification.

138 **Ratified Seat:** An EC seat filled by the ratification process described in section 5.3.3.

139 **Reference Implementation (RI):** The prototype or "proof of concept" implementation of a
140 Specification.

141 **Specification Lead (Spec Lead):** The Expert responsible for leading the effort to develop
142 or make significant revisions to a Specification and for completing the associated
143 Reference Implementation and Technology Compatibility Kit. A Spec Lead (or the Spec
144 Lead's host company or organization) must be a Java Community Process Member.

145 **Spec Lead Member:** The individual JCP member who is a Spec Lead, or otherwise the
146 company or organization that employs, and is represented by, the Spec Lead.

147 **Technology Compatibility Kit (TCK):** The suite of tests, tools, and documentation that
148 allows an organization to determine if its implementation is compliant with the
149 Specification.

150 **Transfer Ballot:** The EC ballot to approve transfer of ownership of a Specification, RI, and
151 TCK from one Member to another Member.¹

152 **Umbrella Java Specification Request (UJSR):** A JSR that defines or revises a Platform
153 Edition or Profile Specification. A UJSR proceeds through the JCP like any other JSR.

154 The use of the term **day** or **days** in this document refers to calendar days unless otherwise
155 specified.

¹ Transfer of ownership does not mean transfer of IP rights, only transfer of the right to start again. The new Spec Lead can, however, negotiate a transfer of IP with the old Spec Lead.

156 III THE JAVA COMMUNITY PROCESS SM PROGRAM


157 0. GENERAL PROCEDURES

158 0.0 EXPERT GROUP TRANSPARENCY

159 Each Expert Group is free to use the working style that it finds most productive and appropriate, so
160 long as this is compatible with the requirements specified in this document. For example, EGs may
161 choose to operate by seeking consensus or by voting on issues where there is disagreement.

162 As specified below, Expert Groups must operate in a transparent manner, enabling the public to
163 observe their deliberations and to provide feedback. All feedback must be taken into consideration and
164 public responses must be provided. In the initial JSR submission the Spec Lead must specify the
165 transparency mechanisms (for example, the mailing lists and issue tracker) that the Expert Group
166 intends to adopt, and must provide the URLs for accessing the chosen collaboration tools. The PMO
167 will publish this information on the public JSR Page. The Spec Lead must also provide a pointer to any
168 Terms of Use required to use the collaboration tools so that the EC and prospective EG members can
169 judge whether they are compatible with the JSPA.

170 If the EG changes its collaboration tools during the life of the JSR these changes must be reported to
171 the PMO, who will update the relevant information on the JSR Page. Any such changes must ensure
172 that previously-published information is incorporated into the new tools. When voting to approve a
173 JSR's transition to the next stage EC members are expected to take into consideration the extent to
174 which the Spec Lead is meeting the transparency requirements.

175 Spec Leads should be aware of their obligations under the JSPA to license the output of their JSR on
176 Fair, Reasonable, and Non Discriminatory terms, and to make certain patent grants. Incorporating
177 feedback provided through public email aliases or forums without ensuring that the provider has
178 signed the JSPA or an equivalent Contribution Agreement may make it impossible to meet these
179 requirements or may expose the Spec Lead Member to legal liability. 

180 The use of *Confidential materials* (as defined in the JSPA) by Expert Groups limits transparency, is
181 strongly discouraged, and will be prohibited in a future version of the Process. If the Spec Lead
182 intends to permit the use of *Confidential materials* (such as emails, drafts or submissions marked as
183 *Confidential*), this must be specified in the initial Java Specification Request. Expert Groups may also
184 choose to keep information private by means other than marking it as Confidential (for example, by not
185 publishing it on a publicly available site).²


186 0.0.1 Mailing Lists

187 All substantive business must be carried out on a public mailing list designated by the Spec Lead. The
188 purpose of this list is to keep observers aware of important issues and, minor administrative issues
189 that distract from substantive business should therefore be kept private. A private mailing list should
190 be used for minor administrative matters. Significant business includes, for example, eliminating or
191 adding new features to the JSR, changes to the membership of the Expert Group, modifications to the
192 reference implementation or the TCK, publication of the agenda, and on-going debate about JSR
193 specifics. Non-substantive administrative matters such as notifications of meeting schedules,
194 messages directing Expert Group members to particular documents or URLs, and reminders about
195 voting or task assignments should be excluded from the public mailing list.

196 If the public mailing list is writable only by Expert Group members the EG must also provide a publicly
197 readable and writable email list or a forum to enable feedback and comments from the public.

2 The EC intends to remove the Confidentiality language from the next version of the JSPA.

198 **0.0.2 Issue Tracking**

199 Issues must be tracked through a publicly readable issue tracking mechanism. A formalized issue
200 tracking mechanism will help to ensure that all issues raised by the Java community are documented
201 and responded to before the JSR moves to the next stage. 

202 **0.0.3 Response to Comments**

203 Expert Groups must respond publicly to all comments before a JSR can move to the next stage. All
204 comments regarding a JSR deserve a well-crafted response. Expert groups should review responses
205 prior to release to ensure that the response addresses the specific comment. Responses to similar
206 comments can be consolidated. Comments that are off-topic do not require a response but should be
207 denoted as such. The Executive Committee reserves the right to require that a comment deemed by
208 the Expert Group as off-topic be addressed before the JSR moves to the next stage.

209 **0.0.4 Changes to Licensing Terms**

210 If the licensing terms for a JSR change from one release to the next, the changes must be explicitly
211 listed and explained. Changes to the licensing terms must be disclosed during JSR submission (in the
212 case of a new JSR) or in the Change Log for Maintenance Releases. Subsequent changes to
213 licensing terms during the life of the JSR must be disclosed when the Specification is next submitted
214 to the PMO for public posting or review.

215 Existing licensees who not wish to accept a modified license when required to adopt a newer TCK will
216 have the option to accept the updated TCK under the previous licensing terms.

217 **0.1 EXPERT GROUP MEMBERSHIP**

218 **0.1.1 WITHDRAWAL OF AN EXPERT FROM THE EXPERT GROUP**

219 An Expert may withdraw from the Expert Group at any time. When this happens, the Spec Lead
220 should approach the Member who originally contributed the Expert and work with that organization to
221 find a replacement. If no replacement is offered, the Spec Lead may recruit a replacement from
222 another Member. If the departing Expert is the Spec Lead, the Expert Group should choose one of its
223 members as the new Spec Lead.

224 **0.1.2 DISRUPTIVE, UNCOOPERATIVE OR UNRESPONSIVE EXPERT GROUP MEMBERS**

225 There may be rare instances when members of the Expert Group feel that one of their fellow Experts
226 is not acting in ways that advance the work of the Expert Group, and is being disruptive,
227 uncooperative or unresponsive. EG members are expected to make a reasonable effort to resolve any
228 such issues among themselves, with the active help of the Spec Lead. However, if the situation cannot
229 be resolved in a timely manner, any three members of the EG can approach the Spec Lead and
230 request that the EG member in question be excluded from further participation in the EG. If the Spec
231 Lead agrees to the request he can then do so. In the case where the EG Member in question is an
232 Member Representative, the Spec Lead must first request that the Member replace its representative.
233 If the Member does not do so in a timely manner, the Spec Lead can exclude the Member itself from
234 further EG participation. The Spec Lead's decision as to whether or not to exclude can be appealed to
235 the EC by following the process outlined in Section 0.6, "Escalation and Appeals"

236 **0.1.3 UNRESPONSIVE OR INACTIVE SPEC LEAD**

237 There may be rare instances when members of the Expert Group feel that the Spec Lead is not acting

238 in ways that advance the work of the Expert Group and is being unresponsive or inactive. These
239 concerns should be brought to the attention of the EC as quickly as possible so they may be
240 proactively addressed and resolved. The EC is expected to make a reasonable effort to resolve any
241 such issues in a timely manner. However, if the situation cannot be resolved in a timely manner, any
242 three members of the EG may request the EC to replace the Spec Lead for cause (which should be
243 made clear and documented to the EC). If the EC agrees that there is cause, it may ask the PMO to
244 replace the Spec Lead. In the case where the Spec Lead is an Member Representative the PMO
245 should ask the Member to replace the Spec Lead, or it may seek to put in place an alternative Spec
246 Lead, in which case the EC must conduct a transfer ballot as specified in section 5.1.2 of this
247 document. If no Spec Lead replacement can be found, the EC may disband the Expert Group.

248 **0.2 JSR DEADLINES**

249 If a JSR does not begin Early Draft Review within the first 12 months following the completion of its
250 initial JSR Approval Ballot (JSR Approval), or does not begin Public Review within 2 years of JSR
251 Approval, or has not achieved Final Release within 3 years of JSR Approval, then a majority of the EC
252 may initiate a JSR Renewal Ballot. The PMO will inform the Spec Lead and Expert Group of this
253 decision and will request the Spec Lead and Expert Group to prepare a public statement to the EC.
254 The JSR Renewal Ballot will start 30 days after the request. If the JSR Renewal Ballot is approved by
255 the EC, then another renewal ballot cannot be initiated for that JSR for an additional year.

256 If the JSR Renewal Ballot fails, the Expert Group will have 30 days to update the JSR in response to
257 the concerns raised by the EC, and may submit a revised version to the PMO. If a revised JSR is not
258 received by the end of the 30 days, the original decision by the EC will stand and the JSR will be
259 closed. If a revision is received, then the PMO will forward it to the EC and initiate a JSR Renewal
260 Reconsideration Ballot. At the close of balloting, all comments submitted by EC members, together
261 with their ballots will be circulated to the Expert Group by the PMO. If this ballot fails, the JSR will be
262 closed and the Expert Group will disband. If the JSR was a revision to an existing Specification, the
263 Spec Lead will resume the role of Maintenance Lead of the current Specification (see section 5).

264 **0.3 COMPATIBILITY TESTING**

265 The Spec Lead is responsible for defining the process whereby the TCK is used to certify
266 implementations of the JSR as compatible. The Spec Lead must submit to the PMO at least quarterly,
267 and at every Maintenance Release, a list of all implementations that have been certified as compatible
268 and that have been released publicly or commercially. The PMO will publish this information on the
269 JCP website. If the Spec Lead submits the information in the form of a pointer to an already published
270 list the PMO may choose simply to reference that list rather than duplicate it.

271 TCK license terms must permit implementors to freely and publicly discuss the testing process and
272 detailed TCK test results with all interested parties.

273 **0.4 EXECUTIVE COMMITTEE DUTIES**

274 **0.4.1 Transparency**

275 All substantive Executive Committee business should be conducted in the most transparent manner
276 possible. EC transparency requirements are specified in a separate document, EC Standing Rules.

277 **0.4.2 Draft Reviews**

278 During Draft Review periods EC members are strongly encouraged to have one or more technical
279 members of their organizations review the draft in order to uncover possible duplication of features or

280 services between the draft and other Specifications. EC members should inform the Expert Group of
281 any such discoveries using the feedback mechanism specified by the Spec Lead. EC feedback is
282 particularly important to the Expert Group, and EC members are encouraged not to wait until ballot
283 periods to raise concerns and issues.

284 **0.5 PMO RESPONSE TIMES**

285 Materials to be posted on the JCP website for review, comment, or any other official EG or EC
286 business should be submitted to the PMO, which will post them on the website and announce their
287 availability to Members and the public within seven days of receipt.

288 **0.6 ESCALATION AND APPEALS**

289 Unless otherwise specified in this document, any EG member can appeal to the EC regarding a
290 decision, an action or inaction by the PMO, a Spec Lead, or a Maintenance Lead that affects EG
291 participation or issue-resolution and which cannot be resolved by other reasonable means. An appeal
292 must be initiated by sending an email message to the PMO (pmo@jcp.org) in all cases, even if it
293 affects the PMO. The message must describe the issue under appeal clearly and concisely, with a
294 short and relevant Subject: line, and provide all relevant documentation to support the appeal. The
295 PMO shall transmit the message to the EC no later than seven days of receipt. The EC shall then
296 respond to the appellant within 30 days, either with a resolution or with a request for clarification
297 and/or further documentation.

298 **1. INITIATE A NEW OR REVISED SPECIFICATION**

299 **1.0 INITIATE A JAVA SPECIFICATION REQUEST**

300 One or more Members can initiate a request to develop a new Specification, or carry out a significant
301 revision to an existing one, by sending a JSR to the PMO. The JSR must use the template available at
302 the JCP Web Site. Any JSR under consideration can be withdrawn by its submitter(s) without
303 explanation at any time prior to the completion of the JSR approval vote (see section 1.3) upon
304 request by the submitter(s) to the PMO.

305 The following is some of the information required to be included with each JSR:

- 306 • the Members making the request (the submitters), the proposed Spec Lead, and the initial
307 members of the Expert Group.
- 308 • a description of the proposed Specification.
- 309 • the reason(s) for developing or revising it.
- 310 • the primary Platform Edition, as well as any consideration given to other Platform Editions.
- 311 • an estimated development schedule.
- 312 • any preexisting documents, technology descriptions, or implementations that might be used as
313 a starting point.
- 314 • a transparency plan, which outlines the tools and techniques that the Spec Lead will use,
315 during the creation and development of the Specification, and for communicating the progress
316 within the Expert Group to Community Members, EC Members and the public. The EC will
317 expect the Spec Lead to operate the JSR in accordance with this plan.

318 **1.0.1 REVISE EXISTING SPECIFICATIONS**

319 Existing Specifications, together with their associated RIs and TCKs, are maintained by a designated
320 Maintenance Lead using the processes described in section 4 of this document. Maintenance Lead

321 Members are expected to assume long term ownership of the Specification, RI, and TCK while
322 respecting the wishes of the Java Community Members with regard to evolution. Maintenance Leads
323 will therefore be the Spec Leads for all significant revisions to their Specifications, but they will not
324 have the exclusive right to decide when a significant revision will take place. That will be decided by
325 the EC in response to a revision JSR that can be initiated by any Java Community Member.
326 Submitter(s) should make a reasonable effort to get some of the members of the previous Expert
327 Group to join the revision effort.

328 **1.0.2 PROTECT THE INSTALLED BASE AND GUARD AGAINST FRAGMENTATION**

329 Changes to the Java programming language, the Java virtual machine (JVM), the Java Native
330 Interface (JNI), packages in the "java.*" space, or other packages delivered as part of Java SE, have
331 the potential to seriously disrupt the installed base if carried out inconsistently across the Platform
332 Editions. In order to protect the installed base, any such changes can only be accepted and carried
333 out within a UJSR for Java SE.

334 In order to guard against fragmentation, new Platform Edition Specifications will not substantially
335 duplicate existing Platform Editions or Profiles.

336 **1.0.3 PROFILES AND API SPECIFICATIONS TARGET CURRENT PLATFORM EDITIONS**

337 All new or revised Specifications must be compatible with the most recent versions of the targeted
338 Platform Edition Specifications. In order to achieve this, all UJSRs to define new Profile Specifications
339 or revise existing Profile Specifications must reference the latest version of the Platform Edition
340 Specification they are based upon.

341 **1.0.4 PLATFORM INCLUSION**

342 The technology that a JSR defines can be delivered as part of a Profile or Platform Edition, it can be
343 delivered stand-alone, or both. The JSR submission form requires the submitter to state whether the
344 JSR's RI and TCK should be delivered as part of a Profile or Platform Edition, in stand-alone manner,
345 or both. The final decision whether a specific JSR is included in a Profile or a Platform Edition is made
346 by the Spec Lead and Expert Group of that Platform Edition JSR or Profile JSR, and confirmed by the
347 EC ballots on those JSRs. If the Platform Edition or Profile JSR turns down the request for inclusion,
348 then the JSR for the API will be required to deliver a stand-alone RI and TCK.

349 Technologies may be incorporated into a Profile or Platform Edition after having been initially delivered
350 standalone. A JSR for a new version of an API that proposes to become part of a Profile or Platform
351 Edition and is considering discontinuing stand-alone availability must state the rationale for this
352 change. The public must be informed of the intention to discontinue the availability of the standalone
353 RI and TCK one release in advance.

354 **1.1 JSR REVIEW**

355 When a JSR is received, the PMO will give it a tracking number, assign the JSR to the appropriate EC
356 (or to both ECs if so requested by the submitter), create its JSR Page, announce the proposed JSR to
357 the public, and begin JSR Review. Comments on the JSR should be sent to the JSR's public feedback
358 alias. Comments will be forwarded to the EC for its consideration and will be made available from the
359 JSR Page (similar comments may be consolidated.). Members who are interested in joining the Expert
360 Group (should the JSR be approved) should identify themselves by submitting a nomination form to
361 the PMO.

362 **1.1.1 DISCLOSURE OF LICENSING TERMS FOR THE RI AND TCK**

363 The Spec Lead Member is responsible for developing the Reference Implementation and Technology
364 Compatibility Kit and for licensing them as described in the JSPA. The Spec Lead Member must
365 provide the EC with complete copies of the proposed RI and TCK licenses no later than the start of
366 JSR Review. The licenses will be published on the public JSR page. EC members should provide
367 feedback on the terms as an indication of how the community as a whole might react to the terms. If
368 the EC consensus is that the proposed licensing terms are not compatible with the licensing guidelines
369 established for use within the JCP, then balloting on the proposed JSR will be delayed until Oracle
370 legal provides an opinion on the matter. The opinion of Oracle legal will be the final decision on the
371 matter.

372 **1.2 JSR APPROVAL BALLOT**

373 After the JSR Review, EC members will review the JSR and any comments received, and cast their
374 ballot as specified in Section 5 below to decide if the JSR should be approved.

375 If the JSR Approval Ballot fails, the PMO will send all EC comments to the JSR submitter(s) who may
376 revise the JSR and resubmit it within 14 days. If a revised JSR is not received in that time, the original
377 EC decision will stand and the JSR will be closed. If a revised JSR is received, the PMO will post it to
378 the JSR Page, announce the revised JSR to the public, and send it to all EC members for a JSR
379 Reconsideration Ballot. If that ballot fails, the JSR will be closed.

380 **1.3 FORM THE EXPERT GROUP**

381 Within 14 days of a JSR being approved, the PMO instructs the identified Spec Lead to form the
382 Expert Group. If the Member contributing the Spec Lead withdraws from the Community before the
383 JSR is approved, the PMO will request the preliminary Expert Group to choose a replacement from
384 among themselves who is willing to take on the duties defined in this document.

385 There is no size limit on the Expert Group. The Spec Lead may add additional Experts at any time
386 provided the existing EG members are consulted. New members may be added, for example, to
387 increase diversity of opinion.

388 Any JCP Member or Member Representative can request to join an Expert Group at any time by
389 sending an email to the Spec Lead of the EG. The request, together with the Spec Lead's official
390 response, substantive deliberations within the EG about this matter, and any other official decision
391 related to EG composition, including decisions to remove or replace EG members, must be made
392 public via the EG's public alias.

393 **2. DRAFT RELEASES**

394 **2.0 WRITE THE FIRST DRAFT OF THE SPECIFICATION**

395 The Expert Group should begin work by considering the requirements set forth in the JSR, any
396 contributed documents or technology descriptions, comments received during JSR Review and, if this
397 is a revision of an existing Specification, the Change Log kept by the Maintenance Lead (see section
398 4). Additional input can be obtained from discussions with other Members, industry groups, software
399 developers, end-users, and academics. The goal is to define requirements and then write a draft
400 Specification suitable for review by the Community and the public.

401 When the Expert Group decides that the first draft is ready for review, the Spec Lead will send the
402 draft, along with any additional files required for review, to the PMO. The Spec Lead should also
403 suggest the length of the Early Draft Review period if the Expert Group feels it should go beyond the

404 minimum 30 days.
405 Multiple Early Drafts (and Early Draft Reviews) are encouraged where the Expert Group feels that this
406 would be helpful.

407 **2.1 EARLY DRAFT REVIEW**

408 Refinement of the draft Specification begins when the PMO posts it to the JCP Web Site and
409 announces the start of Early Draft Review. Anyone can download and comment on the draft. The goal
410 of Early Draft Review is to get the draft Specification into a form suitable for Public Review as quickly
411 as possible by uncovering and correcting major problems with the draft. Early Draft Review is an early
412 access review, and should ideally take place when the Specification still has some unresolved issues.
413 The public's participation in Early Draft Review is an important part of the JCP. In the past, comments
414 from the public have raised fundamental architectural and technological issues that have considerably
415 improved some Specifications.

416 **2.1.1 UPDATING THE DRAFT DURING EARLY DRAFT REVIEW**

417 If the Expert Group makes major revisions to the draft during Early Draft Review, the Spec Lead
418 should send the revised draft, along with a synopsis of the changes, to the PMO who publish these
419 online and make them available for download by the public.
420 After the Early Draft Review period has ended, the Expert Group can make any additional changes to
421 the draft it deems necessary in response to comments before submitting the draft to the PMO for
422 Public Review.

423 **2.2 PUBLIC REVIEW**

424 Public Review begins when the PMO posts a new draft Specification on the JCP Web Site and
425 announces its availability for public review and comment.
426 The Spec Lead is responsible for ensuring that all comments are read and considered. If those
427 comments result in revisions to the draft, and those revisions result in major changes (in the opinion of
428 the Expert Group), then the Spec Lead must send an updated draft (with a summary of the changes)
429 to the PMO before the review period ends. The PMO will post the new draft and the change summary
430 on the JCP Web Site and will notify the public that the new draft is available.

431 **2.3 PUBLIC DRAFT SPECIFICATION APPROVAL BALLOT**

432 The Public Draft Specification Approval Ballot starts when the Public Review closes. At the close of
433 balloting, all comments submitted by EC members with their ballots will be circulated to the Expert
434 Group by the PMO.

435 If the Public Draft Specification Ballot fails, the Expert Group will have 30 days to update the draft in
436 response to the concerns raised by the EC and to submit a revised version to the PMO. If a revised
437 draft is not received within 30 days, the original decision by the EC will stand and the JSR will be
438 closed. If a revision is received, the PMO will forward it to the EC and initiate a Public Draft
439 Specification Reconsideration Ballot. At the close of balloting, all comments submitted by EC members
440 with their ballots will be circulated to the Expert Group by the PMO. If this ballot fails, the JSR will be
441 closed and the Expert Group will disband. If the JSR was a revision to an existing Specification, the
442 Spec Lead will resume the role of Maintenance Lead of the current Specification (see section 4).

443 **3. FINAL RELEASE**

444 **3.0 PROPOSED FINAL DRAFT**

445 If the Public Draft Specification Approval Ballot (or Reconsideration Ballot) is successful, the Expert
446 Group will prepare the Proposed Final Draft of the Specification by completing any revisions it deems
447 necessary in response to comments received. The Spec Lead will then send the Proposed Final Draft
448 to the PMO, who will post it on the JCP Web Site for public download.

449 **3.0.1 COMPLETE THE RI AND TCK**

450 The Spec Lead Member is responsible for the completion of both the RI and the TCK. JSRs that are
451 assigned to both ECs are required to support both environments, which may require a separate RI and
452 TCK for each environment. If the RI and TCK uncover areas of the Specification that were under-
453 defined, incomplete, or ambiguous, the Spec Lead will work with the Expert Group to correct those
454 deficiencies and then send a revised Specification together with a summary of the changes to the
455 PMO. Information will be posted to the JCP Web Site. The Expert Group will continue to consider any
456 further comments received during this time.

457 **3.0.2 ESTABLISH A FIRST-LEVEL TCK APPEALS PROCESS**

458 The Spec Lead is also responsible for establishing a clearly defined First Level TCK Appeals Process
459 to address challenges to tests contained in the TCK. This process must be described in the TCK
460 documentation. Implementers who are not satisfied with a first level decision should appeal to the EC
461 by documenting their concerns in an email message to the PMO. The PMO will circulate the request to
462 the EC, together with any information received from the ML concerning the rationale for the first-level
463 decision, and initiate a 7-day Appeal Ballot.

464 **3.0.3 UPDATE THE DELIVERABLES IN RESPONSE TO THE APPEAL BALLOT**

465 Depending on the nature of the problem, a successful TCK challenge will require updating one or
466 more of the TCK, the Specification, or the RI. Within one month of the close of a successful TCK
467 Appeal Ballot the Maintenance Lead must update these deliverables as necessary and record the
468 changes in the relevant sections of the Change Log. The modified Change Log, the Specification (if
469 changed,) and URLs for the updated RI and/or TCK must be delivered to the PMO, who will publish
470 them on the JCP website.

471 **3.1 FINAL APPROVAL BALLOT**

472 When the Expert Group is satisfied that the TCK provides adequate test coverage, the RI correctly
473 implements the Specification, and the RI passes the TCK, the Spec Lead will send the Final Draft of
474 the Specification to the PMO together with instructions on how EC members can obtain the RI and
475 TCK for evaluation. The PMO will circulate the materials to the EC and initiate the Final Approval
476 Ballot. At the close of balloting, all EC comments will be sent to the Expert Group by the PMO.

477 The TCK submitted as part of the Final Draft must meet the following requirements:

- 478 • Include documentation covering configuration and execution of the TCK, a definition and
479 explanation of the First-level TCK Appeals Process, the compatibility requirements that must
480 be met in addition to passing the TCK tests, and any other information needed to use the TCK
481 (e.g. Tools documentation).
- 482 • Be accompanied by a test harness, scripts or other means to automate the test execution and
483 recording of results.

484 • Include a TCK coverage document that will help EC members to evaluate the TCK's quality.
485 This document should include an overview of the documentation included in the TCK, a
486 description of means used to validate the quality of the TCK, the criteria used to measure TCK
487 test coverage of the Specification, test coverage numbers achieved, and a justification for the
488 adequacy of TCK quality and its test coverage.

489 • Provide 100% signature test coverage. These tests must ensure that all of the required API
490 signatures of the spec are completely implemented and that no non-specified APIs are
491 included in the JSR's namespace.

492 If the Final Approval Ballot fails, the Spec Lead will have 30 days to revise the Specification, RI, and
493 TCK in response to EC concerns and to resubmit modified materials to the PMO.

494 If no responses are received within 30 days the original decision of the EC will stand, the PMO will
495 close the JSR, and the Expert Group will disband. If the JSR was a revision to an existing
496 Specification, the Spec Lead will resume the role of Maintenance Lead of the current Specification
497 (see section 4).

498 If a response is received, the PMO will circulate it to all EC members for a Final Approval
499 Reconsideration Ballot. At the close of balloting, all ballot comments submitted by EC members will be
500 circulated to the Expert Group by the PMO. If the reconsideration ballot fails, the JSR will be closed
501 and the Expert Group will disband. If the JSR was a revision to an existing Specification, the Spec
502 Lead will resume the role of Maintenance Lead of the current Specification.

503 **3.2 FINAL RELEASE**

504 Within 14 days of a successful Final Approval Ballot or Reconsideration Ballot, the PMO will publish on
505 the JCP website the Specification and links to information on how to obtain the RI and TCK and will
506 announce the availability of these materials to both Members and the public. The published TCK
507 information must include a means for any interested party to obtain a copy of the TCK documentation
508 at no charge. Upon Final Release, the Expert Group will have completed its work and disbands. The
509 Spec Lead will typically be the Maintenance Lead and may call upon Expert Group members and
510 others for aid in that role.

511 The Maintenance Lead must ensure that the links to the RI and TCK remain valid through the lifetime
512 of the Specification. If the links become broken or non-functional, the Maintenance Lead will have 30
513 days following notification from the PMO of the invalid links to correct them. If the problems are not
514 corrected within 30 days, the Specification must reenter the Process at the Proposed Final Draft or
515 Maintenance Review stage as appropriate, and complete the Final Release or Maintenance Release
516 process again. NOTE: IP rights granted when the JSR made any previous releases are not affected by
517 such a change in status.

518 **4. MAINTENANCE**

519 **4.0 MAINTENANCE LEAD RESPONSIBILITIES**


520 The Maintenance Lead Member is expected to assume long term ownership of the Specification, RI,
521 and TCK while respecting the wishes of the Java Community Members with regard to evolution. A
522 Maintenance Lead will therefore automatically be the Spec Lead for all significant future revisions to
523 their Specification but will not have the exclusive right to decide when a significant revision will take
524 place (see section 1.1.1).

525 The PMO will provide a publicly archived Maintenance feedback alias through which the public may
526 submit requests for clarification, interpretation, and enhancements to the Specification.

527 The ML will consider all requests and will decide how and if the Specification should be updated in
528 response. The ML is not required to do all these tasks alone, but is free to consult with the former
529 members of the Expert Group, or any other sources, to assist with the Maintenance duties.

530 All changes proposed by the ML will make their way into the Specification by either the Maintenance
531 Release process (described below) or through a new JSR. Changes appropriate for a Maintenance
532 Release include bug-fixes, clarifications of the Specification, changes to the implementation of existing
533 APIs, and implementation-specific enhancements. Modifications to existing APIs or the addition of new
534 APIs should be deferred to a new JSR.

535 **4.0.1 RELINQUISHING OWNERSHIP**

536 If the ML decides to discontinue his or her work at any time (including discontinuing maintenance
537 activities or declining to take on the role of Spec Lead during a significant revision initiated by a JSR)
538 the ML should make a reasonable effort to locate another Member who is willing to take on the task.
539 The PMO must initiate a Transfer Ballot within one month of a new ML being found. If the ML or the
540 PMO fail to find a replacement, the PMO will declare the Specification to be Dormant. No further
541 maintenance can be carried out. No further Transfer Ballots will be initiated by the PMO unless a
542 Member volunteers as ML, in which case the PMO will have again a month to initiate a Transfer Ballot.
543 If a Transfer Ballot is successful, the new ML must  assume his or her responsibilities no later than 14
544 days after the announcement of the ballot results.

545 **4.1 MAINTENANCE REVIEW**

546 The ML will document all proposed Specification changes in the PROPOSED section of the Change
547 Log and then send a request to the PMO to initiate a Maintenance Review. Before the Maintenance
548 Review begins, the ML must summarize comments received through the Maintenance feedback alias
549 and must indicate the disposition of each comment (e.g. deferred with a brief explanation, rejected
550 with a brief explanation, included in the Change Log proposal.) This summary will be posted along
551 with the Change Log on the JSR Page. The PMO will then make a public announcement and begin
552 the review.

553 The ML may choose to modify one or more of the proposed changes based on comments received
554 during the review.

555 At the close of the Maintenance Review the PMO will initiate a 7-day Maintenance Review Ballot.
556 During this ballot EC members should vote "yes" if they agree that the Maintenance Release should
557 go ahead as the Spec Lead has proposed, and "no" if they believe that one or more of the changes
558 proposed by the ML is inappropriate for a Maintenance Release and should be deferred to a follow-on
559 JSR. "No" votes must be accompanied by comments in which the offending items are identified and
560 the reasons for the objection are explained.

561 If there are any "no" votes the PMO will within two weeks initiate an Item Exception Ballot for each
562 change that EC members have objected to.

563 NOTE: there is no minimum number of "yes" votes required to move forward with the proposed
564 Maintenance Release, and "no" votes cannot prevent a release unless the ML is unwilling to defer
565 items subsequently disallowed in an Item Exception Ballot.

566 At the end of Maintenance Review and any subsequent Item Exception Ballots, the ML will update the
567 Specification, moving all approved revisions from the PROPOSED to the ACCEPTED section of the
568 Change Log. Items voted down in an Item Exception Ballot must be moved to the DEFERRED section
569 of the log. Other changes not incorporated into the Specification may be left in the PROPOSED
570 section or moved to the DEFERRED section at the ML's discretion.

571 **4.2 MAINTENANCE RELEASE**

572 At any time after a Maintenance Review Ballot and possible Item Exception Ballot the Spec Lead will
573 update the Specification, RI, TCK, and Change Log as necessary and submit them to the PMO for
574 publication in a Maintenance Release. The PMO verifies that the necessary changes have been
575 made, and publishes the Specification, the Change Log, and pointers to the RI and TCK on the JSR
576 Web Page.

577 NOTE: until the Maintenance Release stage is reached any proposed changes should be considered
578 preliminary and subject to change, and therefore should not be implemented in shipping products.

579 **5. EXECUTIVE COMMITTEE POLICIES AND PROCEDURES**

580 **5.0 SCOPE**

581 The Executive Committee (EC) oversees the development and evolution of the Java technologies
582 within the JCP.

583 **5.1 MEMBERSHIP**

584 There are currently two Executive Committees: one responsible for Java ME and one for Java SE and
585 EE together. Each EC is composed of 16 Java Community Process Members. Oracle America, Inc.
586 has a permanent voting seat on each EC. (Oracle representatives must not be members of the PMO.)
587 The ECs are led by a non-voting Chair from the Program Management Office.

588 Should one Member on the EC acquire a majority ownership of another EC member, one of those
589 members must resign his or her seat by the effective date of the acquisition.

590 NOTE: In the near future the EC intends to merge the two ECs, and modify the number of members
591 and possibly their terms of office.

592 **5.2 EC DUTIES AND RESPONSIBILITIES**

- 593 1. Select JSRs for development within the JCP.
- 594 2. Approve draft Specifications for Public Review.
- 595 3. Give final approval to completed Specifications and their associated RIs and TCKs.
- 596 4. Decide appeals of first-level TCK test challenges.
- 597 5. Review proposed maintenance revisions and possibly require some to be carried out in a new
598 JSR.
- 599 6. Approve the transfer of maintenance duties between Members.
- 600 7. Decide when JSRs that have not made sufficient progress through the Process should be
601 withdrawn.
- 602 8. Provide guidance to the PMO and JCP Community to promote the efficient operations of the
603 organization and to guide the evolution of Java platforms and technologies. Such guidance
604 may be provided by mechanisms such as publishing white papers, reports, or comments as the
605 EC deems appropriate to express the opinions of one or both Executive Committees.

607 Members of the Executive Committee shall be dedicated to the principles of full and open competition,
608 in full compliance with all applicable laws, including all antitrust laws of the United States and other
609 nations and governmental bodies as appropriate. Violations of such laws can result in criminal as well
610 as civil penalties for individuals as well as employers, depending on the jurisdiction. In particular, any
611 discussion related to product pricing, methods or channels of distribution, division of markets or
612 allocation of customers, among other subjects, should be avoided.

613 **5.3 EC SELECTION PROCESS AND LENGTH OF TERM**

614 EC members serve three-year terms, which are staggered so that a third of the seats are up for
615 election each year.

616 On each EC there are two Ratified Seats for every Elected Seat (currently 10 Ratified Seats and 5
617 Elected Seats) plus one permanent seat held by Oracle America, Inc.

618 **5.3.1 RESIGNATION OF EC SEATS**

619 EC Members may resign their seats at any time during their term.

620 EC members who fail to remain Java Community Members forfeit their EC seat.

621 Vacated seats will be filled for the remainder of their term by a special election ballot that will be held
622 no later than two months after the resignation (unless the resignation is less than six months before
623 the next scheduled annual election ballot).

624 **5.3.2 ELECTION PROCESSES**

625 All JCP Members are eligible to vote in ballots for Ratified and Elected Seats subject to the provision
626 that if a Member has majority-ownership of, or is the employer of, one or more other Members, then
627 that group of Members will collectively have 1 vote, which will be cast by the person they designate to
628 be their representative for the ballot in question.

629 Annual elections for Ratified and Elected Seats will be held simultaneously. Voting in these elections
630 will start in the third week of October.

631
632 In the interests of promoting transparency and participation in the election process the PMO shall
633 organize teleconferences at which the Members have an opportunity to hear from and to ask
634 questions of the candidates. If a suitable venue such as JavaOne is available the PMO shall also
635 organize a public meeting with the same purpose.

636 **5.3.3 SELECTION PROCESS FOR RATIFIED SEATS**

637 Members are selected for the Ratified Seats using a ratification ballot which is carried out as follows:

- 638 • The PMO nominates Members to fill the vacant Ratified Seats with due regard for balanced
639 community and regional representation.
- 640 • Eligible Members will vote to ratify each nominee over a 14-day voting period.
- 641 • A nominee is ratified by a simple majority of those who cast a vote.
- 642 • If one or more of the nominees are not ratified by the vote, the PMO will nominate additional
643 Members as needed and hold additional ratification ballots until the vacant seats are filled.

644 **5.3.4 SELECTION PROCESS FOR ELECTED SEATS**

645 Members are selected for the Elected Seats using an open election process that is carried out as
646 follows:

- 647 • Four weeks before the voting period the PMO will post on the public JCP site a complete
648 description of all materials that will be provided to voters (e.g. any candidate statements,
649 position papers, candidate forums, etc. that will be posted during the election).
- 650 • Four weeks before the voting period the PMO will accept nominations from the Community for
651 a period of 14 days. Any Member may nominate themselves except that employees of JCP
652 Members cannot run for Elected Seats as individuals and the PMO shall reject such
653 nominations.

- 654 • Eligible Members may vote for as many nominees as there are vacant Elected Seats over a
655 14-day voting period.
- 656 • The nominees who receive the most votes will fill the vacant Elected Seats.
- 657 • If there is only one nominee for an Elected Seat voters will be given the opportunity to vote
658 "yes" or "no" for that candidate. To be elected, the candidate must obtain a simple majority.
- 659 • Ties will be decided by following the procedure defined in <http://www.ietf.org/rfc/rfc2777.txt> and
660 using the calculator provided by W3C in <http://www.w3.org/2001/05/rfc2777>.

661 **6. EXECUTIVE COMMITTEE JSR VOTING RULES**

- 662 1. All JSR ballots will be conducted electronically and the results made public.
- 663 2. JSR balloting periods last 14 days except where noted in this document.
- 664 3. EC Members may cast three types of votes: "yes", "no" and "abstain". Explicit abstentions are
665 strongly discouraged. In the extreme and most undesirable case, an EC Member may not
666 vote at all.
- 667 4. Only "yes" and "no" votes count in determining the result of a JSR ballot.
- 668 5. JSR ballots are approved if (a) a majority of the votes cast are "yes" votes, and (b) a
669 minimum of 5 "yes" votes are cast. Ballots are otherwise rejected.
- 670 6. Ballots to approve UJSRs for new Platform Edition Specifications or JSRs that propose
671 changes to the Java language are approved if (a) at least a two-thirds majority of the votes
672 cast are "yes" votes, (b) a minimum of 5 "yes" votes are cast, and (c) Oracle casts one of the
673 "yes" votes. Ballots are otherwise rejected.
- 674 7. Maintenance Review ballots are advisory only, as indicated in section 4.1.
- 675 8. "No" votes must be accompanied by an explanation of the changes (if any) that would
676 persuade the member to change the vote to "yes".
- 677 9. It is highly recommended that abstentions be accompanied by comments.
- 678 10. When a failed JSR ballot results in the closing of a JSR, at least 1 month must pass before
679 the JSR can be reinitiated.
- 680 11. EC ballots to override a first-level decision on a TCK challenge are approved if (a) at least a
681 two-thirds majority of the votes cast are "yes" votes, and (b) a minimum of 5 "yes" votes are
682 cast.
- 683 12. An item listed in an Item Exception Ballot will be deferred to the next JSR if at least one-third
684 of the EC Members cast "no" votes for that item.
- 685 13. When more than one EC is voting on any JSR ballot, the ballot will be approved only if each
686 EC approves it separately.

687 **IV APPENDIX A: REVISING THE JCP AND THE JSPA**

688 Revisions to the Java Community Process (this document) and the Java Specification Participation
689 Agreement will be carried out using the Java Community Process with the following changes:

- 690 1. Only EC members can initiate a JSR to revise one of these documents.
- 691 2. Each EC must approve the JSR.
- 692 3. The Expert Group consists of both ECs with a member of the PMO as Spec Lead.
- 693 4. There is no Reference Implementation or Technology Compatibility Kit to be delivered and no
694 TCK appeals process to be defined.