

**EGI-Engage**

Deliverable/Milestone review form

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| **Details of the document being reviewed** |
| *Title:* | **Relocating VM instances between providers, final specification** | *Document identifier:* | EGI-doc-2680 |
| *Project:* | **EGI-Engage** | *Document url:* | <https://documents.egi.eu/document/2680> |
| *Author(s):* | **Alvaro López García** | *Date:* | **Feb. 5, 2016** |

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| **Identification of the reviewer** |
| *Reviewer:* | **Johan Montagnat** | *Activity:* | **WP3** |

**General comments on the content**

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| **Comments from Reviewer:** |
| The document is overall rather well written and covers the different aspects of VM migration sufficiently. Most of the minor changes proposal and comments are made directly inside the Word document in revision mode. The end of Section 2.2 tends to mix state-of-the-art on VM migration with a discussion on whether different kind of migrations could be envisaged in the context of the EGI FedCloud. I would present the different kinds of migration by increasing order of complexity (cold -> warm -> live) and refer less to the specificities of the EGI FedCloud at this point. It is surprising at the beginning of Section 3 to see that the use cases presented target one type of migration. I would expect that use cases are studied to identify requirements and that technical solutions to address these requirements are proposed instead. I am pretty sure that live migration over multiple sites/solutions is not possible. But if a use case requires live migration, it should be clearly stated that this can only happen inside a single cloud site rather than being discarded a priori.In section 4 it is not completely clear whether “VM disk(s)” refer to data partitions attached to a VM or/and the VM image file. In particular, it is not clear when the VM image file is transferred and whether image file conversion is needed at some point. |
| **Response from Author:**  |
| Section 2.2 has been modified to introduce the different approaches of migration in the order suggested.Regarding live migration, this has been fixed in the text.Regarding Section4, this has been clarified in the text. |

**Additional comments**

*(not affecting the document content e.g. recommendations for the future)*

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| **From reviewer:** |
| Cold migration is considered in this document but of limited interest (will be applicable to checkpointable applications only as described in the use cases). Live migration is probably out of reach over multiple sites/hypervisors. Warm migration is probably what everybody wants, to allow load balancing, migration upon site administrative shut down, etc.It would be interesting to study further the opportunity of implementing warm migration at least between the hypervisors considered here (KVM, Xen). The document claims that warm migration is more difficult and risky, but it does not give clear evidence that it will not be possible in practice. The reader wonders why warm migration was so hastily discarded. |

**Detailed comments on the content**

| **N°** | **Page** | **§** | **Observations** | **Reply from author(correction / reject,  …)** |
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**English and other corrections:**

Note: English and typo corrections can be made directly in the document as comments.