Technical Review Questionnaire

The following questionnaire must be submitted by the Partner organization when applying to join the program. (Per VMware request please be prepared to present the solution to the team using webex – slides to include: Problem statement; Partner solution technology deep dive; VMware APIs to be used; Approximate timeline of release; Target customer base; Target revenue; Support structure)

**Section 1**

**1a. Partner Information**

Company Name:

Annual Revenue:

Are you a member of the TAP Elite program?

Are you a member of any other VMware technology programs? If so, which ones?

**1b. Product Information**

Marketing description of Product:

Technical description / block diagram of product:

Target customers:

Target revenue:

Release timeline:

How frequently do you expect your product (and associated KB article) to be updated?

Business Justification as to why PVSP is a good fit for this solution:

Is this is a vMSC (vSphere Metro Storage Cluster) solution? (Yes/No)

Is your product going to ship as a VIB? (N/A for vMSC solutions)

Do you have necessary access to the APIs/interfaces you need? If not, which APIs do you need access to via PVSP? (N/A for vMSC solutions)

Which versions of vSphere do you expect your product to work with?

**Section 2**

**2a. VMware APIs Used**

Please pick from the following SDKs and then list all specific APIs from those SDKs that are used.

* VAAI SDK (BVDK)
* VAAI NAS SDK (NVDK)
* Host Extensions SDK
* Pluggable Storage Architecture (PSA) SDK:
* VMKLinux Driver Development Kit (DDK):
* VMK API Driver Development Kit:
* CIM Provider Development Kit (CIMPDK):
* Virtual Disk Development Kit (VDDK):
* Other (Please specify):

Are you using or do you plan to use any private or unsupported APIs (VMware APIs not released via a public SDK or released via a partner program):

**2b. Technical Details**

Block diagram of the product especially the interfaces to the rest of the VMware stack. This should include the VMware APIs/SDKs that are used for the Partner product:

Clearly identify kernel modules and user world(s) components

Resource usage details: e.g. clearly identify how scheduling of user worlds will not impact the user world guidelines for VMware (See Chapter 2 of CIM Guide)

Management plane interactions for the solution including TCP/UDP port numbers used:

Data plane interactions for the solution including use of pNICs, HBAs, vmknics, etc.

For vMSC (vSphere Metro Storage Cluster) solutions please answer the following:

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| --- |
| 1. What is the max latency/distance supported for the inter-cluster link between sites? |
| 2. Does the solution require uniform or non-uniform host access?Note: * Uniform host access configuration - When ESXi hosts from various sitesare all connected to a storage node in the storage cluster across allsites. Paths presented to ESXi hosts are stretched across distance
* Non-Uniform host access configuration - ESXi hosts in each site are connected only to storage node(s) in the same site. Paths presented to ESXi hosts from storage nodes are limited to local site
 |
| 3. Does the solution support active/active or active/passive device technology?Note:* Active/Active – Same LUN/Volume is presented and can be accessed on each storage node in the cluster at the same time.
* Active/Passive – Given LUN/Volume is only presented on one of the storage node in the cluster at the same time.
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| 4. What host interface are you planning to support? |
| 5. Does the solution contain Storage Virtualization Device (SVD) to virtualize the back-end storage array connected to the SVD device? If yes, describe the back-end SVD interface? |
| 6. Does the solution present the same LUN unique identified (e.g., NAA for LUN, NAS share for volume) across sites.Note: This is mandatory for vMSC.  |
| 7. Does the solution support remote synchronous mirroring?Note: This is mandatory for vMSC. Remote Asynchronous mirroring is not supported with vMSC at this time. |
| 8. Does the solution require user manual Intervention to failover LUNs/Volumes under certain failure scenarios?Note: This is not recommended for vMSC. |
| 9. List all user manual action required and the corresponding failure scenario for your solution. |
| 10. Does the solution provide redundant storage processors for high availability on each site?Note: This is required for vMSC to avoid performance slow down for Active/Passive solution or VM disruption due to single SP failure. |
| 11. How does the solution deal with a split brain scenarios where the inter-cluster link fails between the storage nodes in the cluster?Note: This is mandatory for vMSC |
| 12. Does the solution require storage site broker as a tiebreaker for split-brain scenarios? If not, describe the mechanism used in the solution? |
| 13. If storage site broker is required, is the storage site broker product generally available to customers? |
| 14. How are the LUNs/volumes failed over to the other site for each protocol for active/passive device solutions? |
| 15. Does the solution support ALUA with an ability to specify which path(s) are optimized and non-optimized? |
| 16. Does the solution work with VMware Native Multi-Pathing (NMP) module? If not, specify the Multi-pathing required the solution? |
| 17. If your solution does require multi-pathing module other than Native Multi-Pathing (NMP) module, does your multi-pathing module handles Permanent Device Loss (PDL) by returning VMK\_PERM\_DEV\_LOSS error when it loses access to a device (LUN)?Note:   Losses of access to the device/LUN includes one of the following scenarios:1. LUN is unmapped from the host,
2. LUN is removed from the array,
3. LUN is having unrecoverable hardware issues.
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| 18. What SATP and PSP are required on ESX for your solution? |
| 19. What SCSI sense codes are returned to ESX, when the array can no longer service I/O  requests and under what scenarios?Note: SCSI sense code 05/25/00 is used to trigger vSphere HA Restart of VMs on ESX host that receives this error code to a surviving ESX host in the cluster. |
| 20. State any special or unique handling required on ESX for the metro storage solution? |
| 21. Provide a block and wiring diagram for your metro storage solution. |
| 22. Provide Product documentation(s) for your metro cluster solution |
| 23. Provide KB article for your metro cluster solution |

**2c. Security**

Security related aspects around:

1. Host firewall configuration changes
2. Denial of service attack mitigation
3. Clear text passwords
4. Unencrypted communication between data plane/management plane components
5. VIB signing

**2d. Support**

Please confirm that no special VMware technology enablement and/or VMware support structure is required for the Partner product/solution.

Partner support flow

Have you read and understood the [PVSP support flow](http://www.vmware.com/resources/compatibility/vcl/images/GenericPVSPSupportWorkflow.jpg)?

Name and Title of person completing Questionnaire