

VCP-VVF SUPPORT LAB TASKS · EXAM 2V0-18.25

Work task 1 to task 100 and you have broken and fixed vSphere Foundation

Exam 2V0-18.25, VMware vSphere Foundation 9.0 Support. Sections 1 to 4 of the blueprint have no testable objectives; all nine objectives sit in Section 5, troubleshooting. Section A builds the method, B to E cover deployment, conversion, clusters and licences, F to J cover compute, storage and networking, K to M cover VCF Operations, VCF Operations for logs and Orchestrator, and N is timed drills. Almost every task asks you to create the fault first. The code at the right of each task is the objective it practises.

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A. METHOD AND TOOLKIT

Before any fault: an order to work in, and the tool for each question.

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| 1. | Write a troubleshooting method in six steps: scope, when it started, what changed, which layer, evidence, fix. | 5.8 |
| 2. | List the tools VVF 9.0 gives you and the question each answers: VCF Operations, VCF Operations for logs, the workbench, vCenter and the ESX host client. | 5.8 |
| 3. | Find the logs for vCenter and ESX, and how to reach each. | 5.5 |
| 4. | Write the support bundle options for vCenter, ESX and VCF Operations. | 5.8 |
| 5. | Write when you would open a case with Broadcom, and what you gather first. | 5.8 |
| 6. | Set up a lab where you can break things safely, and record what you may not break at work. | 5.8 |

B. INITIAL DEPLOYMENT

Objective 5.1. Most failed deployments are a prerequisite somebody missed.

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| 7. | Remove a reverse DNS record for one appliance and run installer validation. Read the error. | 5.1 |
| 8. | Set one host to a different NTP source and run validation. Read the error. | 5.1 |
| 9. | Set a VLAN or MTU wrongly in the deployment inputs and run validation. Read the error. | 5.1 |
| 10. | Use a password that breaks the complexity rules and record where the installer stops you. | 5.1 |
| 11. | Find the installer logs, and the first error in a failed run. | 5.1 |
| 12. | Write how you retry a failed deployment step rather than starting again. | 5.1 |

C. CONVERTING VSPHERE TO VVF

Objective 5.2. Bringing an existing estate into VVF 9.0.

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| 13. | Write the prerequisites for converting an existing vSphere environment to VVF 9.0. | 5.2 |
| 14. | Run the conversion precheck in a lab against an environment that fails one prerequisite, and fix it. | 5.2 |
| 15. | Find the logs for a failed conversion and the first error. | 5.2 |
| 16. | Write what to check after a conversion to prove it worked. | 5.2 |

D. CLUSTERS AND HOSTS

Objective 5.3. Create clusters, add and remove clusters and hosts, import.

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| 17. | Create a cluster whose hosts do not match the cluster image, read the error, and fix it. | 5.3 |
| 18. | Turn on vSAN on a new cluster with the vSAN network missing on one host, and read the result. | 5.3 |
| 19. | Add a new cluster and find why VCF Operations shows it with no data or unlicensed. | 5.3 |
| 20. | Remove a cluster and record what must be moved or cleaned up first. | 5.3 |
| 21. | Add a host with a different ESX build or vendor add-on, read the error, and fix it. | 5.3 |
| 22. | Remove a host from a cluster, and record what blocks it when vSAN cannot evacuate the data. | 5.3 |

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| 23. | Add a host whose vMotion or vSAN network is wrong, and find the fault. | 5.3 |
| 24. | Write the checks before importing an existing vSphere environment as a cluster, and the usual failures. | 5.3 |

E. LICENCE MANAGEMENT

Objective 5.4. Assignment, entitlements and expiry.

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| 25. | Assign a licence to the wrong component and read the result. | 5.4 |
| 26. | Try to assign more capacity than the licence entitles, and read the error. | 5.4 |
| 27. | Read the entitlement view and explain a component shown as unlicensed. | 5.4 |
| 28. | Write what the 9.0 documentation says happens when a VVF licence expires. | 5.4 |
| 29. | Write how you find which licence is about to expire and who is told. | 5.4 |
| 30. | Write the steps to replace an expired licence. | 5.4 |

F. COMPUTE

Objective 5.5. ESX hosts, vCenter, virtual machines and clusters.

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| 31. | Disconnect a host from vCenter and reconnect it, recording the cause you created. | 5.5 |
| 32. | Make a host not responding by stopping its management agents, then restart them. | 5.5 |
| 33. | Fill a host scratch or log location and read the symptoms. | 5.5 |
| 34. | Break a host time setting and read what fails. | 5.5 |
| 35. | Stop a vCenter service and find which feature stopped working. | 5.5 |
| 36. | Read vCenter service health from its management interface and restart a failed service. | 5.5 |
| 37. | Write what to check when no one can sign in to vCenter. | 5.5 |
| 38. | Write how to tell a vCenter database or disk full problem from a service problem. | 5.5 |
| 39. | Make a virtual machine fail to power on through lack of reserved capacity, and fix it. | 5.5 |
| 40. | Make a virtual machine lose its network by disconnecting the adapter or port group, and fix it. | 5.5 |
| 41. | Create a slow virtual machine through a CPU limit, find it, and remove the limit. | 5.5 |
| 42. | Fail a vMotion on purpose, for example with a missing port group on the target, and read the error. | 5.5 |
| 43. | Make HA admission control block a power-on and explain it. | 5.5 |
| 44. | Make DRS fail to balance through an affinity rule, and find the rule. | 5.5 |
| 45. | Create an EVC mismatch when adding a host, and fix it. | 5.5 |
| 46. | Write how you find what changed on a cluster in the last day. | 5.5 |

G. VSAN

Objective 5.6, part one. Create each fault, then diagnose it.

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| 47. | Break the vSAN network on one host and read the health result and partition. | 5.6 |
| 48. | Fail a device and watch the rebuild, recording the delay before it starts. | 5.6 |
| 49. | Fill vSAN close to full and read what stops working first. | 5.6 |
| 50. | Apply a policy the cluster cannot satisfy and read the compliance error. | 5.6 |
| 51. | Find an inaccessible object and explain why. | 5.6 |

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| 52. | Read the resyncing objects view and explain why data is moving. | 5.6 |
| 53. | Run vSAN health checks and work through every failure. | 5.6 |
| 54. | Write the order you check a vSAN problem in: network, devices, capacity, policy. | 5.6 |

H. VSAN STRETCHED CLUSTERS

Objective 5.6, part two.

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| 55. | Cut the witness off in a lab and read what still works. | 5.6 |
| 56. | Write the latency and bandwidth limits between sites and to the witness, from the documentation. | 5.6 |
| 57. | Fail one site in a lab and record what restarts and where. | 5.6 |
| 58. | Apply a policy without site mirroring to a VM in a stretched cluster and record the risk. | 5.6 |
| 59. | Write what breaks when the networks are not present in both sites. | 5.6 |
| 60. | Write the checks before adding hosts to a stretched cluster. | 5.6 |

I. ISCSI, NFS AND FIBRE CHANNEL

Objective 5.6, part three.

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| 61. | Break iSCSI port binding or a target address, read the error, and fix it. | 5.6 |
| 62. | Remove a host from an NFS export permission and read the mount error. | 5.6 |
| 63. | Write how an FC zoning or masking error shows up on the host. | 5.6 |
| 64. | Write the difference between all paths down and permanent device loss. | 5.6 |
| 65. | Read the storage paths for a device and find a dead path. | 5.6 |
| 66. | Write what to collect for the storage team when a datastore disappears. | 5.6 |

J. DISTRIBUTED AND STANDARD SWITCHES

Objective 5.7. In VVF the network stops at the switch: there is no NSX.

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| 67. | Mismatch the MTU on one host and prove it with vmkping. | 5.7 |
| 68. | Put an uplink on the wrong VLAN and find it. | 5.7 |
| 69. | Read the distributed switch health check and fix a finding. | 5.7 |
| 70. | Rename a standard switch port group on one host and record what breaks for vMotion and HA. | 5.7 |
| 71. | Lose host management while migrating a VMkernel adapter to a distributed switch, and record how rollback saves it. | 5.7 |
| 72. | Block traffic with a standard switch security setting, such as MAC address changes, and find it. | 5.7 |
| 73. | Set a wrong failover order on a standard switch and find why traffic fails when one uplink goes down. | 5.7 |

K. VCF OPERATIONS CONFIGURATION

Objective 5.8, part one: when the monitoring itself is broken.

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| 74. | Stop a collector and find the objects with no data. | 5.8 |
| 75. | Break an adapter credential and read the collection error. | 5.8 |

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| 76. | Read VCF Operations cluster status and a node that is down. | 5.8 |
| 77. | Break log forwarding from a host and find the gap in VCF Operations for logs. | 5.8 |
| 78. | Use VCF Operations for logs to find the first error before an incident. | 5.8 |
| 79. | Use VCF Operations to find a component in a bad state. | 5.8 |

L. TROUBLESHOOTING WITH VCF OPERATIONS

Objective 5.8, part two: the workbench, Log Assist, and your own dashboards, reports and alerts.

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| 80. | Open the troubleshooting workbench for a slow virtual machine and read its findings. | 5.8 |
| 81. | Use the workbench to find a change that happened just before an incident. | 5.8 |
| 82. | Generate a log bundle for a component from VCF Operations. | 5.8 |
| 83. | Upload a log bundle to a support case with Log Assist, or record each step if you have no case. | 5.8 |
| 84. | Create a dashboard that shows the health of one problem area. | 5.8 |
| 85. | Create a report that proves an issue is fixed. | 5.8 |
| 86. | Create an alert that would have caught an issue earlier. | 5.8 |
| 87. | Write which of the three you would build first in a live incident. | 5.8 |

M. VCF OPERATIONS ORCHESTRATOR

Objective 5.9. Configuration faults, then workflow faults.

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| 88. | Break the vCenter connection in Orchestrator, for example with a wrong credential, and read the error. | 5.9 |
| 89. | Make Orchestrator distrust a certificate it needs, and fix the trust. | 5.9 |
| 90. | Break the authentication setup and record what users see when they sign in. | 5.9 |
| 91. | Run a workflow with a wrong input and read the failed run, its logs and variables. | 5.9 |
| 92. | Find a workflow run that is stuck or waiting and explain its state. | 5.9 |
| 93. | Write the checks when an action works by hand but fails when called from a workflow. | 5.9 |

N. AGAINST THE CLOCK

Do this section twice in the last week, with faults somebody else created.

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| 94. | A host shows not responding. Find the cause. 10 minutes. | 5.5 |
| 95. | A virtual machine will not power on. Find the cause. 10 minutes. | 5.5 |
| 96. | A vSAN object is inaccessible. Find the cause. 15 minutes. | 5.6 |
| 97. | A datastore has disappeared from one host. Find the cause. 10 minutes. | 5.6 |
| 98. | vMotion fails between two hosts. Find the network cause. 10 minutes. | 5.7 |
| 99. | VCF Operations shows no data for a cluster. Find the cause. 10 minutes. | 5.8 |
| 100. | An Orchestrator workflow fails. Find the cause. 10 minutes. | 5.9 |