

VCAP VCF OPERATIONS TASKS · EXAM 3V0-22.25

Work task 1 to task 204 and you have run a VCF estate, not just watched one

Exam 3V0-22.25, VMware Certified Advanced Professional in VCF Operations. Every objective sits in one section of the blueprint: all sixteen are under Install, Configure, Administrate, and they carry eighty-three sub-objectives between them, fifteen of those in capacity alone. Sections A to C are the deployment, D to G are capacity, H to K are forecasting, cost, policy and optimization, L to R are monitoring, alerting and dashboards, S and T are the other two products, U and V are fleet management and governance, and W is timed drills. The code at the right of each task is the objective it practises.

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A. THE VCF OPERATIONS DEPLOYMENT

Objective 4.1. What you are operating, before you operate anything with it.

1. Draw your VCF Operations deployment: nodes, roles, and what each one does. 4.1
2. Record the node types and which of them can be added after the first deployment. 4.1
3. Write what a Unified Cloud Proxy is and what it exists to solve. 4.1
4. Configure a Unified Cloud Proxy and confirm it reports as connected. 4.1
5. Create a Collector Group and add collectors to it. 4.1
6. Record what a Collector Group gives you that a single collector does not. 4.1
7. Move an adapter instance onto a Collector Group and confirm collection continued. 4.1
8. Scale a VCF Operations deployment by adding a node, and record what it required. 4.1

B. DAY 2 TASKS AND AUTOMATION CENTRAL

Still 4.1. The work that keeps the platform usable after week one.

9. List the Day 2 operational tasks VCF Operations offers and write one line on each. 4.1
10. Scale a VCF Operations for Logs deployment and record the sizing you applied. 4.1
11. Scale a VCF Operations for Networks deployment and record what changed. 4.1
12. Write the sizing inputs each of the three products asks for, side by side. 4.1
13. Open Automation Central and record what kinds of job it can schedule. 4.1
14. Configure a job in Automation Central and let it run. 4.1
15. Check the job history and record where a failed job reports its reason. 4.1
16. Write which recurring tasks you would move into Automation Central first, and why. 4.1

C. ACCESS CONTROL AND INTEGRATIONS

The last of 4.1, and the part a provider gets asked about first.

17. List the built-in roles in VCF Operations and what each one may do. 4.1
18. Create a custom role by cloning one and removing a single privilege. 4.1
19. Assign the role to a group and sign in as a member to test the boundary. 4.1
20. Record the error a user sees when a role denies an action. 4.1
21. Restrict a user to one object scope and confirm they see nothing else. 4.1
22. Configure a new integration within VCF Operations and confirm it collects. 4.1
23. Record what the integration added: objects, metrics, dashboards, or all three. 4.1
24. Remove an integration and record what stops being collected. 4.1

D. CAPACITY MODELS

Objective 4.2 begins. Fifteen sub-objectives, the largest single block in the blueprint.

25. Write what the demand capacity model measures, in one sentence. 4.2
26. Write what the allocation capacity model measures, in one sentence. 4.2
27. Build a table comparing the two: what each counts, and what each ignores. 4.2
28. Record which model your environment uses now, and where that is set. 4.2
29. Find a cluster and record its remaining capacity under each model. 4.2
30. Explain why the two numbers differ, using that cluster as the example. 4.2

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| 31. | Write which model fits a service provider selling committed resources, and why. | 4.2 |
| 32. | Write which model fits an internal platform chasing efficiency, and why. | 4.2 |
| 33. | Record what changes in the interface the moment you switch model. | 4.2 |

E. RECLAIMING RESOURCES

Still 4.2. Where the capacity you already paid for is hiding.

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| 34. | Open the reclamation view and record every category it reports. | 4.2 |
| 35. | Record the total reclaimable capacity in your environment, by category. | 4.2 |
| 36. | Configure the resource reclamation settings and record each threshold. | 4.2 |
| 37. | Reclaim resources from a powered off virtual machine. | 4.2 |
| 38. | Record how long a machine must be powered off before it is listed, and where that is set. | 4.2 |
| 39. | Identify an idle virtual machine and record the metrics that made it idle. | 4.2 |
| 40. | Reclaim resources from an idle virtual machine. | 4.2 |
| 41. | Reclaim space from virtual machine snapshots, and record the age threshold used. | 4.2 |
| 42. | Find orphaned disks and reclaim the space they hold. | 4.2 |
| 43. | Exclude a virtual machine from reclamation and prove it disappeared from the list. | 4.2 |
| 44. | Write the approval process you would put around reclamation before running it for real. | 4.2 |

F. RIGHTSIZING WORKLOADS

The other half of 4.2, and the one that changes running machines.

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| 45. | Write the process to rightsize a workload, from recommendation to change. | 4.2 |
| 46. | Find an oversized virtual machine and record what made it oversized. | 4.2 |
| 47. | Find an undersized virtual machine and record the symptom in the metrics. | 4.2 |
| 48. | Record the recommended size against the current size for both. | 4.2 |
| 49. | Configure the policy settings that drive rightsizing, and record each one. | 4.2 |
| 50. | Change a rightsizing setting and record how the recommendation moved. | 4.2 |
| 51. | Exclude a virtual machine from rightsizing and confirm it is no longer recommended. | 4.2 |
| 52. | Record which rightsizing actions need downtime and which do not. | 4.2 |
| 53. | Write what you would check before accepting a rightsizing recommendation on a database server. | 4.2 |

G. ALLOCATION MODEL AND CUSTOM PROFILES

The advanced end of 4.2.

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| 54. | Write the process steps to configure the allocation capacity model. | 4.2 |
| 55. | Set the allocation ratios for CPU, memory and storage, and record each. | 4.2 |
| 56. | Record what happens to remaining capacity when you change an overcommit ratio. | 4.2 |
| 57. | Configure the advanced capacity management features and record what each adds. | 4.2 |
| 58. | Write what a custom profile is and the question it answers. | 4.2 |
| 59. | Create a custom profile describing a typical workload in your estate. | 4.2 |
| 60. | Run the profile against a cluster and record how many instances it says will fit. | 4.2 |

61. Create a second profile and compare the two answers on the same cluster.

4.2

H. WHAT-IF SCENARIOS

Objective 4.3, seven sub-objectives, all of them planning questions.

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| 62. | Write what a what-if scenario is for, and what it does not change. | 4.3 |
| 63. | Run a capacity forecast and record how far ahead it projects. | 4.3 |
| 64. | Build a what-if scenario adding workloads to a VCF private cloud. | 4.3 |
| 65. | Build a what-if scenario removing workloads, and record the capacity returned. | 4.3 |
| 66. | Build a what-if scenario adding hosts to a private cloud. | 4.3 |
| 67. | Build a what-if scenario removing hosts, and find the point where capacity runs out. | 4.3 |
| 68. | Build a what-if scenario adding HCI hosts and record what it asks for that a standard host does not. | 4.3 |
| 69. | Build a what-if scenario migrating workloads to or from a VMware Cloud. | 4.3 |
| 70. | Build a what-if scenario migrating workloads to or from a public cloud, and record the cost comparison. | 4.3 |
| 71. | Commit more than one scenario at once and record what committing actually did. | 4.3 |

I. COST, PRICING AND CHARGEBACK

Objective 4.4. The part that gets shown to people who do not log in.

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| 72. | Complete the cost management configuration and record what it needed first. | 4.4 |
| 73. | Change the currency setting and confirm the figures reported in it. | 4.4 |
| 74. | Write the difference between cost and price in one sentence each. | 4.4 |
| 75. | Write the difference between the provider view and the consumer view. | 4.4 |
| 76. | List the cost drivers and record where each default value comes from. | 4.4 |
| 77. | Update a cost driver with your real figure and record how the cost per workload moved. | 4.4 |
| 78. | Create a pricing or rate card. | 4.4 |
| 79. | Update the rate card and confirm the change reached the consumer view. | 4.4 |
| 80. | Configure chargeback and produce a figure for one tenant or business unit. | 4.4 |
| 81. | Configure billing for resources and record what a recipient would actually receive. | 4.4 |

J. POLICIES AND THE POLICY HIERARCHY

Objective 4.5, three sub-objectives that quietly control the other fifteen.

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| 82. | Draw the policy hierarchy in VCF Operations, from default downwards. | 4.5 |
| 83. | Record which policy applies to an object when two could, and why. | 4.5 |
| 84. | Create a policy and record every group of settings it contains. | 4.5 |
| 85. | Update a policy and record what recalculated afterwards. | 4.5 |
| 86. | Assign a policy to a specific inventory object. | 4.5 |
| 87. | Confirm from the object side which policy it is now using. | 4.5 |
| 88. | Change one threshold in a policy and find the alert that changed because of it. | 4.5 |

K. WORKLOAD OPTIMIZATION AND INTENTS

Objective 4.6. Mostly differentiate and identify verbs, so precision matters.

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| 89. | Write what business intent is, in one sentence. | 4.6 |
| 90. | Write what operational intent is, in one sentence. | 4.6 |
| 91. | Give one concrete example of each, and check you have not swapped them round. | 4.6 |
| 92. | Write the difference between host-based and cluster-based business intent. | 4.6 |
| 93. | Write what the Moderate operational intent mode optimises for. | 4.6 |
| 94. | Write what the Consolidate mode optimises for, and what it costs. | 4.6 |
| 95. | Write what the Balanced mode optimises for. | 4.6 |
| 96. | Write what Buffer does in operational intent and what happens when it is too small. | 4.6 |
| 97. | Record the process stages for configuring operational intent. | 4.6 |
| 98. | Record the process stages for configuring business intent, and run one. | 4.6 |
| 99. | Write the benefit of Advanced Workload Placement when VCF Automation is in play. | 4.6 |

L. CUSTOM GROUPS AND BUSINESS APPLICATIONS

Objective 4.7 begins. Grouping is what makes everything else readable.

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| 100. | Create a Custom Group with a static membership. | 4.7 |
| 101. | Create a Custom Group with a dynamic membership rule. | 4.7 |
| 102. | Add a machine that matches the rule and confirm it joined on its own. | 4.7 |
| 103. | Record what a Custom Group lets you do that an inventory folder does not. | 4.7 |
| 104. | Apply a policy to a Custom Group and confirm the members picked it up. | 4.7 |
| 105. | Create a Business Application and add its tiers. | 4.7 |
| 106. | Open the Business Application view and record what it shows that a group does not. | 4.7 |
| 107. | Break one member deliberately and record how the application view reported it. | 4.7 |

M. SERVICE DISCOVERY AND TELEGRAF

The application monitoring half of 4.7.

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| 108. | Write the difference between Service Discovery, Managed Telegraf and open-source Telegraf. | 4.7 |
| 109. | Record what each one requires on the guest, and what it does not. | 4.7 |
| 110. | Configure Service Discovery and let it run against a group of machines. | 4.7 |
| 111. | Record the services it found, and one it did not. | 4.7 |
| 112. | Deploy the Managed Telegraf agent to a virtual machine. | 4.7 |
| 113. | Record the prerequisites the deployment needed: credentials, ports, guest tools. | 4.7 |
| 114. | Configure the agent to collect operating system metrics and confirm they arrive. | 4.7 |
| 115. | Configure the agent to collect metrics from one application and confirm they arrive. | 4.7 |
| 116. | Monitor an application end to end using Application Monitoring. | 4.7 |
| 117. | Record what you would do for an application Telegraf has no plugin for. | 4.7 |

N. MANAGEMENT PACKS

Objective 4.8, including the one everybody forgets, the builder.

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| 118. | Record what a Management Pack adds, in objects, metrics and dashboards. | 4.8 |
| 119. | Install a Management Pack. | 4.8 |
| 120. | Configure the Management Pack with its endpoint and credentials. | 4.8 |
| 121. | Confirm it is collecting and find the objects it created. | 4.8 |
| 122. | Monitor Kubernetes through a Management Pack and record what becomes visible. | 4.8 |
| 123. | Write the process steps to create a Management Pack with Management Pack Builder. | 4.8 |
| 124. | Record what a Management Pack costs you at upgrade time. | 4.8 |

O. ALERTS, NOTIFICATIONS AND OUTBOUND PLUGINS

Objective 4.9 begins. Nothing here works until you have triggered it once.

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| 125. | Open an existing alert definition and record its symptoms, impact and recommendations. | 4.9 |
| 126. | Configure an alert and set its criticality. | 4.9 |
| 127. | Create a Custom Alert from your own symptom definition. | 4.9 |
| 128. | Trigger the alert deliberately and confirm it fired. | 4.9 |
| 129. | Clear the condition and confirm the alert cancelled itself. | 4.9 |
| 130. | Configure an outbound plugin and test the connection. | 4.9 |
| 131. | Record the outbound plugin types available and what each one integrates with. | 4.9 |
| 132. | Configure a notification and bind it to your alert. | 4.9 |
| 133. | Trigger it again and confirm the notification was delivered. | 4.9 |
| 134. | Record what happens to notifications when the outbound target is unreachable. | 4.9 |

P. TROUBLESHOOTING WORKBENCH AND LOG ASSIST

The diagnostic half of 4.9, and the only troubleshooting in this blueprint.

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| 135. | Open the Troubleshooting Workbench on an object and record the four things it shows. | 4.9 |
| 136. | Use the workbench to find what changed on an object around a known time. | 4.9 |
| 137. | Use the workbench on a real or staged performance problem and write your conclusion. | 4.9 |
| 138. | Record which evidence the workbench gave you, and which you still had to find elsewhere. | 4.9 |
| 139. | Write the order you would work a slow virtual machine complaint in this tool. | 4.9 |
| 140. | Upload a VCF log bundle using Log Assist. | 4.9 |
| 141. | Record what Log Assist collected, and how long the upload took. | 4.9 |
| 142. | Record when you would use Log Assist rather than collecting bundles by hand. | 4.9 |

Q. DASHBOARDS, VIEWS AND REPORTS

Objective 4.10. Three sub-objectives, and the most visible work you will do.

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| 143. | Record the difference between a dashboard, a view and a report. | 4.10 |
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| 144. | Create a custom dashboard and add three different widget types. | 4.10 |
| 145. | Configure a widget interaction so one widget drives another. | 4.10 |
| 146. | Share the dashboard with a group and confirm they can see it. | 4.10 |
| 147. | Create a custom view and choose its subject and columns. | 4.10 |
| 148. | Add the view to a dashboard and confirm it renders. | 4.10 |
| 149. | Create a custom report from one or more views. | 4.10 |
| 150. | Schedule the report and confirm it was delivered. | 4.10 |
| 151. | Write the one question your dashboard answers, then remove every widget that does not help. | 4.10 |

R. SUPER METRICS

Objective 4.11. One sub-objective, and more marks than that suggests.

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| 152. | Write what a super metric is and when a normal metric will not do. | 4.11 |
| 153. | Create a super metric with a simple formula. | 4.11 |
| 154. | Associate the super metric with an object type and enable it in a policy. | 4.11 |
| 155. | Confirm it is collecting values, and record how long before data appeared. | 4.11 |
| 156. | Build a super metric that rolls a child metric up to a parent object. | 4.11 |
| 157. | Put the super metric on a dashboard and confirm it reads correctly. | 4.11 |

S. VCF OPERATIONS FOR LOGS

Objective 4.12. A separate product with its own habits.

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| 158. | Confirm VCF Operations for Logs is receiving events, and from what. | 4.12 |
| 159. | Configure a source for event monitoring and confirm its events arrive. | 4.12 |
| 160. | Run an interactive query and narrow it to one event type. | 4.12 |
| 161. | Create a log event alert query. | 4.12 |
| 162. | Trigger the condition and confirm the alert fired. | 4.12 |
| 163. | Manage dashboards in Operations for Logs: create one and add a chart. | 4.12 |
| 164. | Install a content pack and record what it added. | 4.12 |
| 165. | Manage content packs: clone one, change it, and record why cloning was needed. | 4.12 |
| 166. | Write which question you take to Logs rather than to Operations. | 4.12 |

T. VCF OPERATIONS FOR NETWORKS

Objective 4.13. One sub-objective, but a whole product behind it.

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| 167. | Confirm VCF Operations for Networks is collecting, and from which sources. | 4.13 |
| 168. | Find a virtual machine and trace its network path end to end. | 4.13 |
| 169. | Record what the flow analysis shows that NSX alone does not. | 4.13 |
| 170. | Use it to answer one real question about east-west traffic. | 4.13 |
| 171. | Record what it tells you about a firewall rule that is never hit. | 4.13 |
| 172. | Write when you would reach for this product rather than Operations or Logs. | 4.13 |

U. FLEET MANAGEMENT

Objective 4.14. Five sub-objectives, and the most consequential buttons in the product.

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| 173. | Record what Fleet Management covers, and which components appear in your fleet. | 4.14 |
| 174. | Write the process steps for scaling VCF Fleet Management lifecycle. | 4.14 |
| 175. | Check for available updates and record what the fleet reports. | 4.14 |
| 176. | Run a pre-check on an upgrade and record everything it flagged. | 4.14 |
| 177. | Upgrade one component of a VCF fleet and record the order it enforced. | 4.14 |
| 178. | Manage SSL certificates using Certificate Management, and replace one. | 4.14 |
| 179. | Record which services had to be re-registered after the certificate changed. | 4.14 |
| 180. | Manage passwords using Password Management and rotate one account. | 4.14 |
| 181. | Record what a failed rotation looks like and how you would recover it. | 4.14 |
| 182. | Configure VCF SSO through Identity and Access Management, and keep a way back in. | 4.14 |

V. LICENSING, COMPLIANCE AND CONFIGURATION

Objectives 4.15 and 4.16, the governance end of the product.

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| 183. | Open License Management and record every license the fleet is using. | 4.15 |
| 184. | Add or update a license and confirm it applied to the right components. | 4.15 |
| 185. | Record what the product tells you as a license approaches expiry. | 4.15 |
| 186. | Run a Compliance Benchmark and record the score it returned. | 4.15 |
| 187. | Pick one failed control, fix it, and re-run the benchmark to prove the change. | 4.16 |
| 188. | Record which benchmarks are available and which applies to your estate. | 4.16 |
| 189. | Open Config Drift and record what it is comparing against. | 4.16 |
| 190. | Change a setting deliberately and find it reported as drift. | 4.16 |
| 191. | Use Audit Users to find who logged on, and when. | 4.16 |

W. AGAINST THE CLOCK

Do this section twice in the final week, from a clean start, timing yourself.

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| 192. | Configure a Collector Group and move an adapter onto it. 15 minutes. | 4.1 |
| 193. | Configure resource reclamation and reclaim from three categories. 25 minutes. | 4.2 |
| 194. | Rightsize one oversized and one undersized workload. 20 minutes. | 4.2 |
| 195. | Run a what-if scenario adding hosts, and commit it. 20 minutes. | 4.3 |
| 196. | Configure a rate card and produce a chargeback figure. 25 minutes. | 4.4 |
| 197. | Create a policy, assign it to an object, and prove it applied. 15 minutes. | 4.5 |
| 198. | Configure operational intent and business intent on one cluster. 20 minutes. | 4.6 |
| 199. | Deploy Managed Telegraf and collect one application metric. 30 minutes. | 4.7 |
| 200. | Create a custom alert, an outbound plugin and a notification, then fire it. 25 minutes. | 4.9 |
| 201. | Build a dashboard, a view and a scheduled report. 30 minutes. | 4.10 |
| 202. | Create a super metric and show it on a dashboard. 15 minutes. | 4.11 |
| 203. | Replace a certificate and rotate a password through Fleet Management. 25 minutes. | 4.14 |
| 204. | Run a compliance benchmark and resolve one finding. 20 minutes. | 4.16 |