

Associate VMware Data Center Virtualization

Exam Details

The Associate VMware Data Center Virtualization Exam (1V0-21.20), which leads to VMware Certified Technical Associate – Data Center Virtualization 2020 is a 51-item exam, with a passing score of 300 using a scaled method. Exam time is 135 minutes.

Exam Delivery

This is a proctored exam delivered through Pearson VUE. For more information, visit the [Pearson VUE website](#).

Certification Information

For details and a complete list of requirements and recommendations for attainment, please reference the [VMware Education Services – Certification website](#).

Minimally Qualified Candidate

The minimally qualified candidate has basic hands on experience operating vSphere. The minimally qualified candidate also has working knowledge of: vSphere, guest operating systems and storage, networking and hardware knowledge.

Exam Sections

VMware exam blueprint sections are now standardized to the seven sections below, some of which may NOT be included in the final exam blueprint depending on the exam objectives.

Section 1 – Architecture and Technologies

Section 2 – Products and Solutions

Section 3 – Planning and Designing

Section 4 – Installing, Configuring, and Setup

Section 5 – Performance-tuning, Optimization, and Upgrades

Section 6 – Troubleshooting and Repairing

Section 7 – Administrative and Operational Task

If a section is missing from the list below, please note it is because the exam has no testable objectives for that section.

The objective numbering may be referenced in your score report at the end of your testing event for further preparation should a retake of the exam be necessary.

Sections Included in the Exam

Section 1 - Architecture and Technologies

- Objective 1.1: Identify how physical resources are presented to multiple virtual machines.
- Objective 1.2: Identify how virtual resources can be shared across multiple virtual machines.
- Objective 1.3: Identify examples of type 1 and type 2 hypervisors.
- Objective 1.4: Identify business challenges addressed by vSphere.
- Objective 1.5: Identify the components of a vSphere environment.
- Objective 1.6: Identify vSphere virtual networking components and types.
- Objective 1.7: Identify the characteristics of storage access protocols for vSphere.
- Objective 1.8: Identify the characteristics of vSphere storage technologies.
- Objective 1.9: Identify the purposes of different virtual machine files.
- Objective 1.10: Identify the types of OS that can run on virtual machines.
- Objective 1.11: Identify use cases for virtual machine snapshots, cloning and templates.
- Objective 1.12: Identify the functionality of the vSphere vMotion and Storage vMotion technology
- Objective 1.13: Identify the use cases of vSphere vMotion and Storage vMotion technology
- Objective 1.14: Identify the characteristics of vSphere High Availability and Fault Tolerance.
- Objective 1.15: Identify use cases of High Availability and Disaster Recovery.
- Objective 1.16: Identify the functionality of VMware Distributed Resource Scheduler (DRS).
- Objective 1.17: Given a DRS score, identify the meaning.
- Objective 1.18: Identify the use cases for Enhanced vMotion Compatibility (EVC).

Section 2 - VMware Products and Solutions – There are no testable objectives for this section

Section 3 - Planning and Designing – There are no testable objectives for this section

Section 4 - Installing, Configuring, and Setup

- Objective 4.1: Identify Virtual Switch configuration options.
- Objective 4.2: Identify how to configure different types of datastores.
- Objective 4.3: Identify how to configure vSphere HA.
- Objective 4.4: Identify how to configure vSphere DRS.
- Objective 4.5: Identify how to configure EVC.

Section 5 - Performance-tuning, Optimization, Upgrades – There are no testable objectives for this section

Section 6 - Troubleshooting and Repairing – There are no testable objectives for this section

Section 7 - Administrative and Operational Tasks

- Objective 7.1: Identify how to create and manage VM snapshots.
- Objective 7.2: Identify how to manage VM templates and clones.
- Objective 7.3: Identify the considerations when provisioning a VM.
- Objective 7.4: Identify the options that can be performed on different inventory objects.
- Objective 7.5: Identify the concepts of role-based user management
- Objective 7.6: Identify virtual networking issues that impact vSphere.
- Objective 7.7: Identify virtual storage issues that impact vSphere.
- Objective 7.8: Identify the purpose of monitoring alarms, tasks and events.
- Objective 7.9: Identify how to monitor vSphere Cluster and SDRS Cluster.
- Objective 7.10: Identify how to perform and monitor vMotion, Storage vMotion, and Cold migrations.
- Objective 7.11: Given a vSphere environment, identify how to use performance charts to monitor the environment.
- Objective 7.12: Identify the purpose for VMware Tools.

Recommended Courses

VMware Data Center Virtualization: Core Technical Skills

References

- <http://www.vmware.com>
- <http://kb.vmware.com>
- <https://blogs.vmware.com>
- <https://docs.vmware.com>
- <https://pubs.vmware.com>
- <https://www.vmware.com/techpapers.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-ED375B12-7D08-4B7E-81EE-DCE83E51B1AF.html?hWord=N4lghgNiBclBYE8AOBTATgNwJYGcD2alAvkA>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-B3A1A79B-EF9B-4C10-A053-D54D88254C52.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-7686FEC3-1FAC-4DA7-B698-B808C44E5E96.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-8C04BAA0-45BD-4484-BAB3-CE6FD24FEB0E.html?hWord=N4lghgNiBclE4FMD0B7ArnAxggBABxRQhxQDcEsUBbKgSwBcqEA7ekAXyA>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-8B88D3D8-E9D9-4C05-A065-B3DE1FFFB401.html?hWord=N4lghgNiBclE4FMD0C4DcwBcCWB7AdkiAL5A>
- <https://www.vmware.com/topics/glossary/content/hypervisor>
- <https://www.vmware.com/topics/glossary/content/bare-metal-hypervisor>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-F6088A3D-EE09-4C17-B327-FEEEA6FA4879.html>
- <https://www.vmware.com/in/products/vsphere/drs-dpm.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-52DC7277-5321-4BB5-86B4-D73D258F6529.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-5EE84941-366D-4D37-8B7B-767D08928888.html>
- <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-D5AB2BAD-C69A-4B8D-B468-25D86B8D39CE.html>

<https://docs.vmware.com/en/VMware-vSAN/index.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vsan-planning.doc/GUID-1D8956A2-3F46-49C8-9231-38F3A9D09A0F.html?hWord=N4lghgNiBclG4GcwDsAEB7ARgKwKYGMAXVTMBXAEAF8g>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere-lifecycle-manager.doc/GUID-74295A37-E8BB-4EB9-BFBA-47B78F0C570D.html>

<https://www.vmware.com/products/vcenter-server.html#:~:text=VMware%20vCenter%20Server%20is%20advanced,the%20hybrid%20cloud%20with%20confidence.>

Teaming and Failover Policy; <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.networking.doc/GUID-4D97C749-1FFD-403D-B2AE-0CD0F1C70E2B.html?hWord=N4lghgNiBclHYEsDGACALgUzAWwXA5iAL5A>

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-vcenter-server-70-networking-guide.pdf>

https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/techpaper/storage_protocol_comparison-white-paper.pdf

<https://docs.vmware.com/en/VMware-vSphere/6.0/vsphere-esxi-vcenter-server-601-storage-guide.pdf>

<https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.html.hostclient.doc/GUID-3AB5A86D-5AFF-4A18-A758-08A529C7A9F9.html>

<https://kb.vmware.com/s/article/1021175>

<https://docs.vmware.com/en/VMware-vSphere/6.0/com.vmware.vsphere.storage.doc/GUID-3CC7078E-9C30-402C-B2E1-2542BEE67E8F.html>

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-CEFF6D89-8C19-4143-8C26-4B6D6734D2CB.html?hWord=N4lghgNiBclG4FsDOSQF8g

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-CEFF6D89-8C19-4143-8C26-4B6D6734D2CB.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-0289C1E8-7392-4AA7-B6C4-7429B3F85D0F.html?hWord=N4lghgNiBclE4FMDmBLAzgFwXABANwFsQBfIA

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-CEFF6D89-8C19-4143-8C26-4B6D6734D2CB.html

<https://kb.vmware.com/s/article/59222>

https://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&details=1&releases=448&productNames=15&page=1&display_interval=500&sortColumn=Partner&sortOrder=Asc&testConfig=16

https://www.vmware.com/resources/compatibility/search.php?deviceCategory=software&details=1&releases=448&productNames=15&page=1&display_interval=500&sortColumn=Partner&sortOrder=Asc&testConfig=16

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-1E185A80-0B97-4B46-A32B-3EF8F309BEED.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-CA948C69-7F58-4519-AEB1-739545EA94E5.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-8F7F6533-C7DB-4800-A8D2-DF7016016A80.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-E1E7AC27-CE65-4C6A-8E27-9BF5DDC3AF2E.html?hWord=N4lghgNiBclC4FMC2AHCZEgL5A

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-3E1BB630-9223-45E8-A64B-DCB90D450673.html

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-6865D84A-C286-49C4-A4D4-D62145150242.html?hWord=N4lghgNiBclG4GUAOALApGJzQAjgWQHsAXASwiDsQBfIA>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-AB266895-BAA4-4BF3-894E-47F99DC7B77F.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-8A4C395F-382B-4CCC-B15A-3AADCBD9533A.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-8A4C395F-382B-4CCC-B15A-3AADCBD9533A.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-CB46CEC4-87CD-4704-A9AC-058281CFD8F8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-F8224B5D-B392-4166-BA76-7F10795D8C0F.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-8A4C395F-382B-4CCC-B15A-3AADCBD9533A.html>

<https://docs.vmware.com/en/vSphere-Replication/8.3/com.vmware.vsphere.replication-admin.doc/GUID-C987AD18-7C2D-4FA6-B6E4-6B0DDA915A7A.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-CB46CEC4-87CD-4704-A9AC-058281CFD8F8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-755AB944-F3D0-43DD-82CD-8CDDDF8674E8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-23A2BE80-BCE2-49D7-902E-F7B8FDD8F5F8.html?hWord=N4lghgNiBclBZgA6IJYDsCmBnLIC+QA>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-AE4E1173-E3BF-40A6-8540-BD7289EA9F38.html>

VMware vSphere 7.0: Install, Configure, Manage/ About the VM DRS Score

VMware vSphere 7.0: Install, Configure, Manage/ About the VM DRS Score

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-EE6F4E5A-3BEA-43DD-9990-DBEB0A280F3A.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-EE6F4E5A-3BEA-43DD-9990-DBEB0A280F3A.html

vSphere 7.0 Networking Guide, Chapters 2 and 3

vSphere 7.0 Networking Guide, Chapter 9

vSphere 7 ICM, Chapter 5, Slide 13 (Viewing the Configuration of Standard Switches)

vSphere 7 ICM course, Chapter 5, Slide 23 (Configuring Security Policies)

vSphere Storage Guide, Create a VMFS Datastore

User Guide, Create an NFS Datastore

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-B52657D0-248D-4A99-99CC-D35B350461D5.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-6C21CF7D-E519-45E3-BD45-3596C767A16D.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.avail.doc/GUID-3E3B18CC-8574-46FA-9170-CF549B8E55B8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-755AB944-F3D0-43DD-82CD-8CDDDF8674E8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.resmgmt.doc/GUID-FF28F29C-8B67-4EFF-A2EF-63B3537E6934.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-FEC87C0B-7276-4152-8EAA-915305E64FED.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-9F444D9B-44A0-4967-8C07-693C6B40278A.html>

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-9720B104-9875-4C2C-A878-F1C351A4F3D8.html?hWord=N4lghgNiBclM4DswAc4AsD2AXEBfIA

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-542CF191-B8DE-42F1-9CCC-D9030491AE25.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-50BD0E64-75A6-4164-B0E3-A2FBCCE15F1A.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-542CF191-B8DE-42F1-9CCC-D9030491AE25.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-E9EAF7AC-1C08-441A-AB80-0BAA1EAF9FOA.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-9DE2BD8F-E499-4F1E-956B-67212DE593C6.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-1E185A80-0B97-4B46-A32B-3EF8F309BEED.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-CAEB6A70-D1CF-446E-BC64-EC42CDB47117.html

vSphere Virtual Machine Administration Guide, Deploying Virtual Machines

vSphere Virtual Machine Administration Guide, Deploying Virtual Machines

vSphere Virtual Machine Administration Guide. Virtual CPU Limitations

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-77A0EE88-779E-4244-A017-2F527740AB9E.html

https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vm_admin.doc/GUID-9720B104-9875-4C2C-A878-F1C351A4F3D8.html

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-03B36057-B38C-479C-BD78-341CD83A0584.html>

"<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.security.doc/GUID-03B36057-B38C-479C-BD78-341CD83A0584.html>"

<https://kb.vmware.com/s/article/2022022>

<https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.networking.doc/GUID-038AC93F-D710-48ED-8E3B-258A23FB2930.html>

https://www.vmware.com/content/dam/digitalmarketing/vmware/en/pdf/techpaper/virtual_networking_concepts.pdf

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-3B41119A-1276-404B-8BFB-A32409052449.html>

<https://kb.vmware.com/s/article/1008171>

kb.vmware.com, Storage device has entered the All Paths Down state (2032934)

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-82933270-1D72-4CF3-A1AF-E5A1343F62DE.html?hWord=N4lghgNiBclCZgC5gM6lPYCcCmACArimAOZ7oB2ucAligNYgC+QA>

Identifying Device Connectivity Problems <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-3F99C97A-1F62-4129-80D1-559F7A0D9DCC.html>

Identifying Device Connectivity Problems <https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.storage.doc/GUID-3F99C97A-1F62-4129-80D1-559F7A0D9DCC.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-9272E3B2-6A7F-427B-994C-B15FF8CADC25.html#:~:text=An%20alarm%20monitors%20the%20type,virtual%20machine%20alarm%20to%20it.>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-9272E3B2-6A7F-427B-994C-B15FF8CADC25.html#:~:text=An%20alarm%20monitors%20the%20type,virtual%20machine%20alarm%20to%20it.>

<https://docs.vmware.com/en/VMware-vSphere/6.7/com.vmware.vsphere.monitoring.doc/GUID-1F940DAF-933B-44B7-A200-7A11B5D3E3D5.html>

<https://docs.vmware.com/en/VMware-vSphere/6.5/com.vmware.vsphere.monitoring.doc/GUID-8F833B44-E675-406D-BFC1-64FB08EF6DFD.html>

<https://kb.vmware.com/s/article/2034571>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-612FD656-5C18-4F89-80A5-3A01E89E0FB6.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-78459FAA-795E-49F1-8BD9-6759ADEBA768.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-F793604F-6F21-465C-A400-5C04A71FA2E2.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-9C1BE067-9CB5-4CC8-8DAB-F2AC166E1672.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-EA3B742B-6675-4ECB-B386-7B9E95026AF8.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.networking.doc/GUID-1C0D8D8D-F9A5-4443-9AE7-544742630D39.html?hWord=N4lghgNiBclG4GUAOALApGJzQAiOiAlgMZgAuBA9gHbZwC2A1pIWIAL5A>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.vcenterhost.doc/GUID-5211FD4B-256B-4D9F-B5A2-F697A814BF64.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/vsphere-esxi-vcenter-server-70-host-management-guide.pdf>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-FF7F87C7-91E7-4A2D-88B5-E3E04A76F51B.html>

<https://docs.vmware.com/en/VMware-vSphere/7.0/com.vmware.vsphere.monitoring.doc/GUID-88CA95AD-A583-4EF6-838E-D92C87B0BB00.html?hWord=N4lghgNiBclEaQgeyQOxAXyA>

<https://docs.vmware.com/en/VMware-Tools/11.1.0/vmware-tools-user-guide.pdf>

<https://docs.vmware.com/en/VMware-Tools/11.1.0/com.vmware.vsphere.vmwaretools.doc/GUID-6994A5F9-B62B-4BF1-99D8-E325874A4C7A.html>

Exam Content Contributors

Adrian Lee

Aman Arora

Carla Gavalakis

Frank Buechsel

Gabi Faba

Harrison Sherwin

Prateek Jain

Ryan Johnson

Ryan Patel

Wee Kiong Tan



VMware, Inc. 3401 Hillview Avenue Palo Alto CA 94304 USA Tel 877-486-9273 Fax 650-427-5001 www.vmware.com

© 2020 VMware, Inc. All rights reserved. The product or workshop materials is protected by U.S. and international copyright and intellectual property laws. VMware products are covered by one or more patents listed at <http://www.vmware.com/download/patents.html>. VMware is a registered trademark or trademark of VMware, Inc. in the United States and/or other jurisdictions. All other marks and names mentioned herein may be trademarks of their respective companies.

VMware warrants that it will perform these workshop services in a reasonable manner using generally accepted industry standards and practices. THE EXPRESS WARRANTY SET FORTH IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED, STATUTORY OR OTHERWISE INCLUDING IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE SERVICES AND DELIVERABLES PROVIDED BY VMWARE, OR AS TO THE RESULTS WHICH MAY BE OBTAINED THEREFROM. VMWARE WILL NOT BE LIABLE FOR ANY THIRD-PARTY SERVICES OR PRODUCTS IDENTIFIED OR REFERRED TO CUSTOMER. All materials provided in this workshop are copyrighted by VMware ("Workshop Materials"). VMware grants the customer of this workshop a license to use and make reasonable copies of any Workshop Materials strictly for the purpose of facilitating such company's internal understanding, utilization and operation of its licensed VMware product(s). Except as set forth expressly in the sentence above, there is no transfer of any intellectual property rights or any other license granted under the terms of this workshop. If you are located in the United States, the VMware contracting entity for the service will be VMware, Inc., and if outside of the United States, the VMware contracting entity will be VMware International Limited.