



VMsources Group Inc.
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Certified Virtualized Datacenter eXpert™ 5 (CVDX™ 5)

EXAM DESCRIPTION

The **Certified Virtualized Datacenter eXpert™ 5** (CVDX™ 5) is the first and only 100% practical exam and certification available for VMware® vSphere™. Candidates who qualify for the CVDX™ 5 will have **conclusively proven** that they possess the real-world skills and knowledge required to successfully install, configure and manage a VMware® vSphere™ 5 Cloud datacenter environment.

Up until now certifications for VMware® vSphere™ have focused on memorization of facts and figures which candidates must regurgitate in the form of a multiple-choice and multi-select exam. These certifications serve as much to prove a candidates test-taking ability as any specific set or knowledge. Scarcity and expense of resources necessitates the use of multiple-choice certifications by **most** vendors.

The CVDX™ 5 is offered openly, to any candidate who can complete the requirements and demonstrate the skills and techniques outlined in this document; **regardless of prior attendance of any vendors training classes**.

The skill set demonstrated in the successful completion of the CVDX™ 5 will represent the basis for the construction and administration of any VMware® vSphere™ 5 Cloud computing environment. Each assigned task has been chosen for its representative nature and applicability to the overall nature of VMware® vSphere™ 5 administration.

The CVDX™ 5 will place candidates into a true Cloud Computing environment, providing access to real servers, SAN Storage, and other resources through **Infrastructure as a Service (IaaS)**. Candidates will have **two full hours** to complete the requirements outlined in this exam blueprint, using any legitimate means at their disposal. Because there are often several valid ways to fulfill a task with VMware® vSphere™, results count - methodology does not. For example:

Most candidates will spend the majority of the allotted time completing each of the exam requirements as a separate task and/or process. A candidate who is very proficient at scripting, however, might choose to spend the majority of the allotted time creating a script which will do most (or all) of the required tasks and/or processes in a very short period of time.

The CVDX™ 5 is a proctored practical examination. Proctors are there to provide access to **IaaS** resources and give each candidate a **CVDX™ 5 Instruction Set** which will mark the beginning of the two hour allotted time to complete the exam. To insure fairness, proctors may not extend a candidates time beyond the two hour allotment. In the unlikely event of technical difficulties outside the candidates control, proctors may place a candidates time on hold or reschedule an entirely new exam session at no additional cost to the candidate. There is a 15 minute "bathroom break" built into each candidates time which will not count against a candidates two hour time allotment.

Because the CVDX™ 5 is designed to prove a candidates knowledge and skills rather than memorization, it is an open-book exam. Candidates will be permitted to use the Internet (Google, vmware.com) and other reference materials during the exam, just like they would in a production environment. In fact, each candidates **CVDX™ 5 Instruction Set** provides a set of links to official documentation and useful information which is commonly available on the Internet (so you do not need to prepare a cheat-sheet).

The CVDX™ 5 is an individual certification and must be taken by one person without assistance from other individuals. Talking, emails, texting and phone calls are not permitted during the exam. Candidates must not engage in any malicious activity during the exam and will restrict themselves to using only the IaaS resources defined on the candidates **CVDX™ 5 Instruction Set**. Use of network probes or external Compute resources is not permitted. Candidates who violate these terms will have their exam session terminated.



Overall, the CVDX™ 5 may sound like an easy exam, but it is not. Translating an instruction like: "Implement multiple storage paths" from instructions into a real, functioning environment is precisely the type of skill which will be demonstrated. CVDX™ 5 certifications will be graded on a points-basis, using only the functionality of the environment, and the candidates ability to follow instructions as a basis for awarding points. As an example:

- If a candidate has implemented multiple storage paths successfully using the IaaS resources defined, he/she will get 15 points.
- If multiple storage paths do not work, there will be no points awarded.
- If the candidate has failed to use the resources provided in the CVDX™ 5 Instruction Set, but has implemented multiple storage paths, there will be no points awarded.

CVDX™ 5 certification exams will be graded and results delivered via email to candidates within 24 hours of completion of the exam. All certifications are pass/fail, there is no partial completion. The points achieved will be revealed only to the candidate, with successful candidates receiving the CVDX™ 5 Certification and supporting resources within 2 weeks of completion. Candidates who require a re-take may do so at any time, one week or more after their initial attempt. There is no maximum number of attempts, with one week between each attempt. Any disputes regarding the grading of the exam will result in an automatic retake, at no cost to the candidate. Under no circumstances will the pass/fail determination of VMsources result in an adjustment of a candidates score.

EXAM BLUEPRINT

Candidates will be given the IP address of a factory-default installation of VMware ESXi 5. There are no hidden traps, trick questions or manufactured challenges. The exam is difficult enough on its own merits. ***As in any IT environment, the ability to follow instructions is as important as any other skill.***

We have observed hundreds of performances each of the assigned tasks, and given each task an average time for completion. There are no points for speed, only for successful completion of each assigned task. Every candidate will be aware of the allotted time and be able to choose if they can complete the task, or just move on (with a subsequent loss of points). Some tasks are cumulative and critical, and those tasks are indicated in **red** on both the **Exam Blueprint** (this document) and the candidates **CVDX™ 5 Instruction Set**. Without completing those tasks, it is impossible to move forward. Other tasks are not critical to the completion of the CVDX™ 5 Exam and failure to complete these tasks will only affect a candidates overall score.

Hypervisor Tasks (70 Points Total - 35%)	Average time	Points Value
Configure Static IP, DNS and Hostname	3 Min.	5 Points
Set 3 valid, functioning NTP Servers	3 Min.	5 Points
Join ESX to an Active Directory domain	3 Min.	5 Points
log-in with AD credentials using the vSphere Client	1 Min.	5 Points
Produce a diagnostic log bundle	3 Min.	5 Points
Add a Permission for the default group "ESX Admins"	1 Min.	5 Points
Create multiple vmkernel connections using standard VMware vSwitches	7 Min.	10 Points
Connect to iSCSI SAN	4 Min.	5 Points
Implement multiple storage paths with correct port binding	11 Min.	15 Points
Set all volumes to use VMware Storage Path Selection policy "Round Robin"	5 Min.	10 Points



Virtual Machine Tasks (60 Points total - 30%)	Average time	Points Value
Build a Virtual Machine using the VMware Paravirtualized SCSI adapter (due to time, it is not necessary to complete the Virtual Machine build, just present the storage)	6 Min.	15 Points
Import Virtual Appliance(s) using an OVF or OVA template	16 Min.	10 Points
Add a parameter to the Virtual Machine Configuration File (VMX)	4 Min.	5 Points
Install VMware Tools	3 Min.	5 Points
Resize a Virtual Machine system disk partition (on a Windows VM)	5 Min.	10 Points
Connect to a datastore ISO image	2 Min.	5 Points
Access a Virtual Machine BIOS	1 Min.	2 Points
Set a static MAC address for a Virtual Machine	1 Min.	2 Points
Create a snapshot on a Virtual Machine	1 Min.	1 Point
Change the Virtual Machine network adapter to a vmxnet 3	2 Min.	5 points

vCenter Tasks (70 Points Total - 35%)	Average time	Points Value
Configure VMware vCenter Virtual Appliance (installed earlier)	10 Min.	10 Points
Join ESXi to vCenter with hostname	1 Min.	5 Points
Create a cluster with DRS and HA enabled	3 Min.	10 Points
Implement Storage DRS	5 Min.	15 Points
Create nested Resource Pools	3 Min.	5 Points
Create a permission which allows an AD user to access the default role "Resource pool administrator (sample)"	5 Min.	5 Points
Create a Customization Specification	5 Min.	5 Points
Convert a Virtual Machine to a Template	1 Min.	5 Points
Successfully deploy a Virtual Machine from a Template	1 Min.	5 Points
Use vCenter performance charts to document the Virtual Machine metric "Virtual Machine Ready" by exporting to a *.JPG file and saving that file on the desktop	4 Min.	5 Points

In all, we calculate that the qualified candidate should require 120 minutes to complete the all of the assigned tasks successfully. There are 200 points to be awarded, with a passing score of 150 for successful candidates. When you complete all of the assigned tasks, simply disconnect from the IaaS resources provided. Your proctor will not necessarily be the individual who scores your environment and determines if you have passed. The VMware vSphere environment you created is durable, and will be reviewed and scored by qualified individuals within 24 hours of completion.

During the exam, candidates may use all of the resources provided for them in the CVDX™ 5 Instruction Set. In addition, candidates may create Virtual Machines at will using DHCP assigned IP addresses (including, but not required, the vMA or other Virtual Machines). There are no points awarded for completing tasks which are not assigned, but in the completion of assigned tasks, candidates may choose to use resources which have not been provided: so long as those resources use DHCP assigned IP addresses and are not malicious in any way. Candidates will use only IaaS resources as defined in the CVDX™ 5 Instruction Set which includes specific, assigned IP addresses and DHCP assigned IP addresses.

Candidates take full responsibility all of their action during the execution CVDX™ 5 exam. If you choose to use resources which are not provided and, in any way, those resources become a hindrance to the simple completion of the assigned tasks, your CVDX™ 5 results and/or the cost of a re-take (if applicable) will be yours and yours alone.



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After disconnection, your desktop and AD account will be locked to prevent changes to the environment you have created. Only qualified proctors will be able to unlock your environment for grading. For security, review, and in case of disputes, your entire CVDX™ 5 exam session has been recorded.

Luck has nothing to do with it, we wish you success!

-The VMsources Management Team