

**T&C DOC**

# Important Instructions: CKA and CKAD

## Exam Details

- The exams are delivered online and consist of performance-based tasks (problems) to be solved on the command line running Linux.
- The exams consist of 15-20 performance-based tasks.
- Candidates have 2 hours to complete the CKA and CKAD exam.
- The exams are proctored remotely via streaming audio, video, and screen sharing feeds.
- Results will be emailed 24 hours from the time that the exam is completed.

## System Requirements to take the exam

Exams are delivered online and Candidates must provide their own computer with:

- Current version of Chrome or Chromium
  - you don't need to install a virtual machine, use a client machine, or anything beyond a Chrome or Chromium browser
  - Make sure you have third party cookies turned on for the duration of the exam.
- Reliable internet access
  - Ensure others on the same internet connection are not performing activities that use excessive bandwidth (i.e. holding conference calls, streaming content, gaming, etc.)
  - A wired connection is often more stable and robust than a wireless connection
  - Turn off bandwidth-intensive services (e.g. file sync, dropbox, BitTorrent)
- Microphone
  - Please check to make sure it is working before you start your exam session.
- Webcam
  - Ensure the webcam is capable of being moved as the proctor may ask you to pan your surroundings to check for potential violations of exam policy.
  - Try holding up your ID while viewing your webcam feed to ensure your placement and resolution are sufficient for the person viewing your feed to read your ID.
  - If you will be testing from an employer-provide ISP or will use an employer provided machine, please ensure that streaming will be allowed using WebRTC.

Candidates are not allowed to have other applications or browser windows running except the one on which the Exam is being shown.

Candidates should run the [compatibility check tool](#) to verify that their hardware meets the minimum requirements.

## Acceptable Testing Location

Below are the expectations for an acceptable testing location::

- Clutter-free work area
  - No objects such as paper, writing implements, electronic devices, or other objects on top of surface
  - No objects such as paper, trash bins, or other objects below the testing surface
- Clear walls
  - No paper/print outs hanging on walls
  - Paintings and other wall décor is acceptable
  - Candidates will be asked to remove non-décor items prior to the exam being released
- Lighting
  - Space must be well lit so that proctor is able to see candidate's face, hands, and surrounding work area
  - No bright lights or windows behind the examinee
- Other
  - Candidate must remain within the camera frame during the examination
  - Space must be private where there is no excessive noise. Public spaces such as coffee shops, stores, open office environments, etc. are not allowed.

Please see the [Candidate Handbook](#) for additional information covering policies, procedures and rules during the exam

## ID Requirements to take the Exam

- Candidates are required to provide a non-expired Primary ID that contains Candidate's photograph, signature and full name (see acceptable forms of ID in the table below)
- The name on your Primary ID **must exactly match** [the verified name](#) on your exam checklist.

- If the Candidate's full name on their Primary ID contains non-latin characters, then the Candidate must ALSO provide a non-expired Secondary ID containing their full name in Latin Characters and signature, OR a notarized English translation of their Primary ID along with the non-latin character Primary ID

Primary ID (non-expired and including photograph and signature)	Secondary ID (non-expired and including signature with Candidate name in Latin characters)
Passport	Debit (ATM) Card
Government-issued driver's license/permit	Credit Card
Government-Issued local language ID (with photo and signature)	Health Insurance Card
National Identity card	U.S. Social Security Card
State or province-issued identity card	Employee ID Card
住民基本台帳 (Basic resident register with Photo) or マイナンバーカード (My number card)	Student ID Card
	Japanese Health Insurance Card

#### Additional Allowances:

- Some government issued ID such as a passport, driver's license, military ID or state/country card may be a biometric type and may or may not contain a signature. In these cases Primary ID will be accepted without a signature on condition that you also present a Secondary ID which does contain your signature (e.g. bank, credit or debit card)
- For candidates testing in Japan, a Driver's License (with name and recent recognizable photo) is acceptable as a primary ID as long as it is accompanied with a Japanese health insurance card (健康保険証). In Japan, the Japanese health insurance card (健康保険証) is an acceptable form of secondary ID
- Minors, between the age of 16-18, are permitted to take an online proctored exam with PSI, provided they complete the following requirements:
  - A Parent/Guardian must complete the [Parental Release for Testing of Minors](#) form, and submit it to [trainingsupport.linuxfoundation.org](https://trainingsupport.linuxfoundation.org), at least 2 weeks prior to the

scheduled date of the exam

- At check in, the minor candidate must present a valid student ID as a form of identification
- During the PSI check-in process, the candidate's guardian must also present a valid ID and must provide verbal consent during the PSI check-in process.

## Sanctioned Countries

Exams may be administered to citizens of a sanctioned country listed below PROVIDED the citizens are tested OUTSIDE the sanctioned country and their exam registration and current ID show an address OUTSIDE the sanctioned country.

- Cuba
- Iran
- Syria
- Sudan
- North Korea
- Crimea Region of Ukraine

## Resources allowed during exam

During the exam, candidates may:

- review the Exam content instructions that are presented in the command line terminal
- review Documents installed by the distribution (i.e. /usr/share and its subdirectories)
- use their Chrome or Chromium browser to open one additional tab in order to access assets at: <https://kubernetes.io/docs/>, <https://github.com/kubernetes/>, <https://kubernetes.io/blog/> and their subdomains. This includes all available language translations of these pages (e.g. <https://kubernetes.io/zh/docs/>)

No other tabs may be opened and no other sites may be navigated to (including <https://discuss.kubernetes.io/>).

*The allowed sites above may contain links that point to external sites. It is the responsibility of the candidate not to click on any links that cause them to navigate to a domain that is not allowed.*

## Exam Technical Instructions

1. Root privileges can be obtained by running 'sudo -i'.
2. Rebooting of your server IS permitted at any time.
3. Do not stop or tamper with the certterminal process as this will END YOUR EXAM SESSION.
4. Do not block incoming ports 8080/tcp, 4505/tcp and 4506/tcp. This includes firewall rules that are found within the distribution's default firewall configuration files as well as interactive firewall commands.
5. Use Ctrl+Alt+W instead of Ctrl+W.
  - 5.1 Ctrl+W is a keyboard shortcut that will close the current tab in Google Chrome.
6. Ctrl+C & and Ctrl+V are not supported in your exam terminal.

To copy and paste text, please use;

  - 6.1 For Linux: select text for copy and middle button for paste (or both left and right simultaneously if you have no middle button).
  - 6.2 For Mac: ⌘+C to copy and ⌘+V to paste.
  - 6.3 For Windows: Ctrl+Insert to copy and Shift+Insert to paste.
  - 6.4 In addition, you might find it helpful to use the Notepad (see top menu under 'Exam Controls') to manipulate text before pasting to the command line.
7. Installation of services and applications included in this exam may require modification of system security policies to successfully complete.
8. Only a single terminal console is available during the exam. Terminal multiplexers such as GNU Screen and tmux can be used to create virtual consoles.

## CKA & CKAD Environment

- Each task on this exam must be completed on a designated cluster/configuration context.
- To minimize switching, the tasks are grouped so that all questions on a given cluster appear consecutively.
- There are six clusters (CKA) / four clusters (CKAD) that comprise the exam environment, made up of varying numbers of containers, as follows:

### CKA Clusters

Cluster	Members	CNI	Description

k8s	1 master, 2 worker	flannel	k8s cluster
hk8s	1 master, 2 worker	calico	k8s cluster
bk8s	1 master, 1 worker	flannel	k8s cluster
wk8s	1 master, 2 worker	flannel	k8s cluster
ek8s	1 master, 2 worker	flannel	k8s cluster
ik8s	1 master, 1 base node	loopback	k8s cluster – missing worker node

#### CKAD Clusters

Cluster	Members	CNI	Description
k8s	1 master, 2 worker	flannel	k8s cluster
dk8s	1 master, 1 worker	flannel	k8s cluster
nk8s	1 master, 2 worker	calico	k8s cluster
sk8s	1 master, 1 worker	flannel	k8s cluster

- At the start of each task you'll be provided with the command to ensure you are on the correct cluster to complete the task.
- Nodes making up each cluster can be reached via ssh, using a command such as the following: `ssh <nodename>`
- You can assume elevated privileges on any node by issuing the following command: `sudo -i`
- You can also use `sudo` to execute commands with elevated privileges at any time
- You must return to the base node (hostname node-1) after completing each task.
- Nested-ssh is not supported.
- You can use `kubectl` and the appropriate context to work on any cluster from the base node. When connected to a cluster member via ssh, you will only be able to work on that particular cluster via `kubectl`.

- For your convenience, all environments, in other words, the base system and the cluster nodes, have the following additional command-line tools pre-installed and pre-configured:
  - `kubectl` with `k` alias and Bash autocompletion
  - `jq` for YAML/JSON processing
  - `tmux` for terminal multiplexing
  - `curl` and `wget` for testing web services
  - `man` and man pages for further documentation
- Further instructions for connecting to cluster nodes will be provided in the appropriate tasks
- Where no explicit namespace is specified, the default namespace should be acted upon.
- If you need to destroy/recreate a resource to perform a certain task, it is your responsibility to back up the resource definition appropriately prior to destroying the resource.
- The CKA environment is currently running Kubernetes v1.21.
- The CKAD environment is currently running Kubernetes v1.22.

*The CKA, CKS and CKAD exam environment will be aligned with the most recent K8s minor version within approximately 4 to 8 weeks of the K8s release date.*

## Additional Resources

If you need additional help, please login with your LF Account to <https://trainingsupport.linuxfoundation.org> and use the search bar to find an answer to your question, or select your request type from the categories provided.