

# Minikube — Complete Command Reference

All valid commands as listed in the official Minikube documentation.

---

## Cluster Lifecycle

### `minikube start`

Starts a local Kubernetes cluster.

```
bash

minikube start          # Start with default settings
minikube start --driver=docker      # Use Docker as the driver
minikube start --nodes 3 -p multinode    # Start a 3-node cluster
minikube start --cpus=4 --memory=8192      # Set CPU and RAM
minikube start --kubernetes-version=v1.28.0    # Specify K8s version
minikube start --container-runtime=containerd  # Set container runtime
```

### `minikube stop`

Stops a running local Kubernetes cluster. Preserves cluster state so it can be restarted later.

```
bash

minikube stop          # Stop the default profile
minikube stop -p multinode    # Stop a specific profile
```

### `minikube delete`

Deletes a local Kubernetes cluster. All data and state are permanently removed.

```
bash
```

```
minikube delete          # Delete the default cluster  
minikube delete -p multinode  # Delete a specific profile  
minikube delete --all      # Delete all profiles/clusters
```

### **minikube restart**

Restarts a running local Kubernetes cluster (equivalent to stop + start).

```
bash
```

```
minikube restart
```

---

## Cluster Information

### **minikube status**

Gets the status of a local Kubernetes cluster, including whether it is running and the health of its components.

```
bash
```

```
minikube status  
minikube status -p multinode  # Status of a specific profile
```

### **minikube ip**

Retrieves the IP address of the specified node in the cluster.

```
bash
```

```
minikube ip          # IP of the default cluster  
minikube ip -n node2 # IP of a specific node
```

### **minikube version**

Prints the version of Minikube.

```
bash
```

```
minikube version      # Print version  
minikube version --short # Print just the version number  
minikube version --components # List versions of all cluster components  
minikube version -o json    # Output as JSON  
minikube version -o yaml    # Output as YAML
```

### **minikube logs**

Returns logs to help debug a local Kubernetes cluster. Useful for troubleshooting Minikube itself, not user application code.

```
bash
```

```
minikube logs        # Display recent logs  
minikube logs -f     # Follow (stream) logs in real time  
minikube logs --node node2 # Logs from a specific node
```

---

## Addons & Dashboard

### **minikube addons**

Enable or disable Minikube add-ons (extensions that run inside the cluster).

```
bash
```

```
minikube addons list      # List all available addons and their status  
minikube addons enable ingress # Enable the ingress addon  
minikube addons disable ingress # Disable the ingress addon  
minikube addons enable metrics-server  
minikube addons enable dashboard
```

### **minikube dashboard**

Opens the Kubernetes Dashboard in a web browser, providing a GUI to manage cluster resources.

```
bash
```

```
minikube dashboard      # Open the dashboard in browser  
minikube dashboard --url # Print the dashboard URL without opening browser
```

---

## Configuration & Profiles

### **minikube config**

Modify persistent configuration values. Settings are saved and applied on subsequent `start` commands.

```
bash
```

```
minikube config set driver docker      # Set default driver  
minikube config set memory 4096        # Set default memory (MB)  
minikube config set cpus 2            # Set default CPU count  
minikube config set kubernetes-version v1.28.0  
minikube config get driver          # Get a config value  
minikube config unset memory        # Remove a config value  
minikube config view               # View all configuration
```

### **minikube profile**

Get or set the current profile. Each profile is an independent Minikube cluster.

```
bash
```

```
minikube profile list      # List all existing profiles  
minikube profile set myprofile # Switch to a profile  
minikube profile delete myprofile
```

### **minikube update-context**

Updates the kubeconfig entry for Minikube in case the cluster IP or port has changed.

```
bash
```

```
minikube update-context
```

### **minikube update-check**

Prints the current and latest available version of Minikube so you know if an update is available.

```
bash
```

```
minikube update-check
```

---

## **Node Management**

### **minikube node**

Add, remove, or list additional nodes in the cluster.

```
bash
```

```
minikube node list      # List all nodes  
minikube node add       # Add a new worker node  
minikube node delete node2  # Delete a specific node  
minikube node start node2  # Start a stopped node  
minikube node stop node2   # Stop a specific node
```

---

## Networking & Services

### **minikube service**

Returns a URL (or opens a browser) to connect to a Kubernetes service running in the cluster.

```
bash
```

```
minikube service myservice      # Open service in browser  
minikube service myservice --url    # Print URL only, do not open browser  
minikube service myservice -n mynamespace  # Service in a specific namespace  
minikube service list        # List all services and their URLs
```

### **minikube tunnel**

Creates a network tunnel so that `LoadBalancer` type services get an accessible external IP on your local machine.

```
bash
```

```
minikube tunnel      # Start the tunnel (runs in foreground)  
minikube tunnel --cleanup  # Clean up tunnel resources
```

## SSH & Remote Access

### minikube ssh

Logs into the Minikube virtual machine via SSH. Useful for debugging and inspecting the node directly.

```
bash

minikube ssh          # Open an SSH session
minikube ssh "docker ps"    # Run a command remotely and return output
minikube ssh -n node2      # SSH into a specific node
```

### minikube ssh-key

Retrieves the path to the SSH identity key for the specified cluster node.

```
bash

minikube ssh-key        # Key path for the default node
minikube ssh-key -n node2    # Key path for a specific node
```

### minikube ssh-host

Retrieves the SSH host key of the specified node.

```
bash

minikube ssh-host
minikube ssh-host -n node2
```

---

## Docker & Podman Integration

### minikube docker-env

Outputs environment variable instructions so your local `(docker)` CLI communicates with the Docker engine running *inside* the Minikube VM. Lets you build images directly inside Minikube.

```
bash

minikube docker-env      # Print the export commands
eval $(minikube docker-env)  # Apply the env variables in your shell (Linux/macOS)
minikube docker-env -u    # Print unset commands to revert
```

#### **minikube podman-env**

Same as `(docker-env)`, but configures the environment for Podman instead of Docker.

```
bash

minikube podman-env
eval $(minikube podman-env)
```

---

## Image & Cache Management

#### **minikube image**

Manage container images inside the cluster. Lets you build, load, list, or remove images without pushing them to a registry.

```
bash

minikube image list      # List all images in the cluster
minikube image load myimage.tar # Load a pre-built image into the cluster
minikube image build .     # Build an image inside Minikube
minikube image rm myimage:latest # Remove an image
```

#### **minikube cache**

Manage the local image cache. Caching speeds up repeated cluster creation.

```
bash

minikube cache list      # List all cached images
minikube cache add nginx:latest # Cache an image locally
minikube cache delete nginx:latest # Remove an image from cache
```

---

## File Operations

### **minikube cp**

Copies a file from your local machine into the Minikube node.

```
bash

minikube cp /local/path/file.txt /remote/path/file.txt
minikube cp /local/file.txt:/remote/file.txt -n node2 # Copy to a specific node
```

### **minikube mount**

Mounts a local directory into the Minikube node, making your local files accessible inside the VM.

```
bash

minikube mount /home/user/shared:/mnt/shared
minikube mount /local/dir:/remote/dir --port 9001 # Use a specific port
```

---

## Pause & Unpause

### **minikube pause**

Pauses all Kubernetes workloads (containers) inside the cluster. The VM stays running but pods are suspended. Useful to save resources when not actively working.

```
bash  
  
minikube pause  
minikube pause -n node2      #Pause a specific node
```

#### **minikube unpause**

Resumes all previously paused Kubernetes workloads.

```
bash  
  
minikube unpause  
minikube unpause -n node2
```

---

## Utility & Help

#### **minikube kubectl**

Runs a `kubectl` binary that matches the Kubernetes version of your Minikube cluster. Handy if your local `kubectl` version is different from the cluster version.

```
bash  
  
minikube kubectl -- get pods  
minikube kubectl -- get nodes  
minikube kubectl -- apply -f deployment.yaml
```

#### **minikube completion**

Generates shell completion scripts for Minikube, enabling tab-completion in your terminal.

```
bash
```

```
minikube completion bash      # For Bash  
minikube completion zsh      # For Zsh  
minikube completion fish     # For Fish
```

### **minikube help**

Displays help information about any Minikube command.

```
bash
```

```
minikube help          # General help  
minikube help start    # Help for the start command  
minikube start --help   # Same as above (alternative syntax)
```

### **minikube options**

Shows a list of all global command-line flags that apply to every Minikube command (e.g., verbosity, logging, profile selection).

```
bash
```

```
minikube options
```

### **minikube license**

Outputs the licenses of all Minikube dependencies to a specified directory.

```
bash
```

```
minikube license -o /path/to/licenses
```

## **Summary Table**

Command	Purpose
<code>start</code>	Start a local Kubernetes cluster
<code>stop</code>	Stop the cluster (preserves state)
<code>delete</code>	Delete the cluster permanently
<code>restart</code>	Restart the cluster
<code>status</code>	Show cluster status
<code>ip</code>	Get cluster/node IP address
<code>version</code>	Print Minikube version
<code>logs</code>	Get cluster debug logs
<code>addons</code>	Enable/disable/list add-ons
<code>dashboard</code>	Open the Kubernetes Dashboard
<code>config</code>	Manage persistent configuration
<code>profile</code>	Manage multiple cluster profiles
<code>update-context</code>	Fix kubeconfig after IP/port change
<code>update-check</code>	Check for Minikube updates
<code>node</code>	Add/remove/list cluster nodes
<code>service</code>	Access Kubernetes services
<code>tunnel</code>	Expose LoadBalancer services locally
<code>ssh</code>	SSH into the Minikube node

<code>ssh-key</code>	Get SSH key path for the node
<code>ssh-host</code>	Get SSH host key for the node
<code>docker-env</code>	Configure Docker CLI for Minikube
<code>podman-env</code>	Configure Podman CLI for Minikube
<code>image</code>	Build/load/list/remove images
<code>cache</code>	Manage local image cache
<code>cp</code>	Copy files into the node
<code>mount</code>	Mount a local directory into the node
<code>pause</code>	Pause all workloads
<code>unpause</code>	Resume paused workloads
<code>kubectl</code>	Run cluster-matched kubectl
<code>completion</code>	Generate shell completion script
<code>help</code>	Show help
<code>options</code>	Show global flags
<code>license</code>	Output dependency licenses

Source: [Official Minikube Command Reference](#)