11.3.12.12 - kubectl config set-credentials

Synopsis

Set a user entry in kubeconfig.

Specifying a name that already exists will merge new fields on top of existing values.

```
    Client-certificate flags:
    --client-certificate=certfile --client-key=keyfile

    Bearer token flags:
    --token=bearer_token

    Basic auth flags:
    --username=basic_user --password=basic_password
```

Bearer token and basic auth are mutually exclusive.

```
 kubectl config set-credentials NAME [--client-certificate=path/to/cer
```

Examples

```
 # Set only the "client-key" field on the "cluster-admin"
 # entry, without touching other values
 kubectl config set-credentials cluster-admin --client-key=~/.kube/a

 # Set basic auth for the "cluster-admin" entry
 kubectl config set-credentials cluster-admin --username=admin --pas

 # Embed client certificate data in the "cluster-admin" entry
 kubectl config set-credentials cluster-admin --client-certificate=~

 # Enable the Google Compute Platform auth provider for the "cluster
 kubectl config set-credentials cluster-admin --auth-provider=gcp

 # Enable the OpenID Connect auth provider for the "cluster-admin" e
 kubectl config set-credentials cluster-admin --auth-provider=oidc -

 # Remove the "client-secret" config value for the OpenID Connect au
 kubectl config set-credentials cluster-admin --auth-provider=oidc -

 # Enable new exec auth plugin for the "cluster-admin" entry
 kubectl config set-credentials cluster-admin --exec-command=/path/t

 # Enable new exec auth plugin for the "cluster-admin" entry with in
 kubectl config set-credentials cluster-admin --exec-command=/path/t

 # Define new exec auth plugin arguments for the "cluster-admin" ent
 kubectl config set-credentials cluster-admin --exec-arg=arg1 --exec

 # Create or update exec auth plugin environment variables for the "
 kubectl config set-credentials cluster-admin --exec-env=key1=val1 -

 # Remove exec auth plugin environment variables for the "cluster-ad
 kubectl config set-credentials cluster-admin --exec-env=var-to-remo
```

Options

--auth-provider string

Auth provider for the user entry in kubeconfig

--auth-provider-arg strings

'key=value' arguments for the auth provider

--client-certificate string

Path to client-certificate file for the user entry in kubeconfig

---

--client-key string

Path to client-key file for the user entry in kubeconfig

--embed-certs tristate[=true]

Embed client cert/key for the user entry in kubeconfig

--exec-api-version string

API version of the exec credential plugin for the user entry in kubeconfig

---

--exec-arg strings

New arguments for the exec credential plugin command for the user entry in kubeconfig

---

--exec-command string

Command for the exec credential plugin for the user entry in kubeconfig

---

--exec-env strings

'key=value' environment values for the exec credential plugin

---

--exec-interactive-mode string

InteractiveMode of the exec credentials plugin for the user entry in kubeconfig

---

--exec-provide-cluster-info tristate[=true]

ProvideClusterInfo of the exec credentials plugin for the user entry in kubeconfig

---

-h, --help

---

help for set-credentials

--password string

---

password for the user entry in kubeconfig

--token string

token for the user entry in kubeconfig

--username string

username for the user entry in kubeconfig

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

use a particular kubeconfig file

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--user string

The name of the kubeconfig user to use

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl config](#) - Modify kubeconfig files

11.3.12.13 - **kubectl config unset**

Synopsis

Unset an individual value in a kubeconfig file.

PROPERTY_NAME is a dot delimited name where each token represents either an attribute name or a map key. Map keys may not contain dots.

```
kubectl config unset PROPERTY_NAME
```

Examples

```
# Unset the current-context
kubectl config unset current-context

# Unset namespace in foo context
kubectl config unset contexts.foo.namespace
```

Options

-h, --help

---

help for unset

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

       Path to a cert file for the certificate authority

--client-certificate string

       Path to a client certificate file for TLS

--client-key string

       Path to a client key file for TLS

--cluster string

       The name of the kubeconfig cluster to use

--context string

       The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

       Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
       added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

       Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
       added by default to every pod that does not already have such a toleration.

--disable-compression

       If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

       If true, the server's certificate will not be checked for validity. This will make your
       HTTPS connections insecure

--kubeconfig string

       use a particular kubeconfig file

--match-server-version

       Require server version to match client version

-n, --namespace string

       If present, the namespace scope for this CLI request

--password string

       Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl config](https://kubernetes.io/docs/reference/_print/) - Modify kubeconfig files

11.3.12.14 - kubectl config use-context

Synopsis

Set the current-context in a kubeconfig file.

```
kubectl config use-context CONTEXT_NAME
```

Examples

```
# Use the context for the minikube cluster
kubectl config use-context minikube
```

Options

-h, --help

---

help for use-context

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

use a particular kubeconfig file

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl config](#) - Modify kubeconfig files

11.3.12.15 - kubectl config view

Synopsis

Display merged kubeconfig settings or a specified kubeconfig file.

You can use --output jsonpath={...} to extract specific values using a jsonpath expression.

```
kubectl config view [flags]
```

Examples

```
# Show merged kubeconfig settings
kubectl config view

# Show merged kubeconfig settings, raw certificate data, and expose
kubectl config view --raw

# Get the password for the e2e user
kubectl config view -o jsonpath='{.users[?(@.name == "e2e")].user.p
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--flatten

Flatten the resulting kubeconfig file into self-contained output (useful for creating portable kubeconfig files)

-h, --help

---

help for view

--merge tristate[=true]   Default: true

Merge the full hierarchy of kubeconfig files

--minify

Remove all information not used by current-context from the output

---

-o, --output string   Default: "yaml"

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--raw

　　Display raw byte data and sensitive data

--show-managed-fields

　　If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

　　Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

　　Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

　　Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

　　UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

　　Default cache directory

--certificate-authority string

　　Path to a cert file for the certificate authority

--client-certificate string

　　Path to a client certificate file for TLS

--client-key string

　　Path to a client key file for TLS

--cluster string

　　The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

use a particular kubeconfig file

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl config](#) - Modify kubeconfig files

11.3.13 - kubectl cordon

Synopsis

Mark node as unschedulable.

```
kubectl cordon NODE
```

Examples

```
# Mark node "foo" as unschedulable
kubectl cordon foo
```

Options

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

-h, --help

---

help for cordon

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

    Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

    Name of the file to write the profile to

--request-timeout string   Default: "0"

    The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

    The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

    Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

    database name

--storage-driver-host string   Default: "localhost:8086"

    database host:port

--storage-driver-password string   Default: "root"

    database password

--storage-driver-secure

    use secure connection with database

--storage-driver-table string   Default: "stats"

    table name

--storage-driver-user string   Default: "root"

    database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.14 - kubectl cp

Synopsis

Copy files and directories to and from containers.

```
kubectl cp <file-spec-src> <file-spec-dest>
```

Examples

```
# !!!Important Note!!!
# Requires that the 'tar' binary is present in your container
# image.  If 'tar' is not present, 'kubectl cp' will fail.
#
# For advanced use cases, such as symlinks, wildcard expansion or
# file mode preservation, consider using 'kubectl exec'.

# Copy /tmp/foo local file to /tmp/bar in a remote pod in namespace
tar cf - /tmp/foo | kubectl exec -i -n <some-namespace> <some-pod>

# Copy /tmp/foo from a remote pod to /tmp/bar locally
kubectl exec -n <some-namespace> <some-pod> -- tar cf - /tmp/foo |

# Copy /tmp/foo_dir local directory to /tmp/bar_dir in a remote pod
kubectl cp /tmp/foo_dir <some-pod>:/tmp/bar_dir

# Copy /tmp/foo local file to /tmp/bar in a remote pod in a specifi
kubectl cp /tmp/foo <some-pod>:/tmp/bar -c <specific-container>

# Copy /tmp/foo local file to /tmp/bar in a remote pod in namespace
kubectl cp /tmp/foo <some-namespace>/<some-pod>:/tmp/bar

# Copy /tmp/foo from a remote pod to /tmp/bar locally
kubectl cp <some-namespace>/<some-pod>:/tmp/foo /tmp/bar
```

Options

-c, --container string

Container name. If omitted, use the kubectl.kubernetes.io/default-container
annotation for selecting the container to be attached or the first container in the pod
will be chosen

-h, --help

---

help for cp

--no-preserve

The copied file/directory's ownership and permissions will not be preserved in the
container

--retries int

Set number of retries to complete a copy operation from a container. Specify 0 to disable or any negative value for infinite retrying. The default is 0 (no retry).

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.15 - kubectl create

Synopsis

Create a resource from a file or from stdin.

JSON and YAML formats are accepted.

```
kubectl create -f FILENAME
```

Examples

```
# Create a pod using the data in pod.json
kubectl create -f ./pod.json

# Create a pod based on the JSON passed into stdin
cat pod.json | kubectl create -f -

# Edit the data in registry.yaml in JSON then create the resource u
kubectl create -f registry.yaml --edit -o json
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--edit

Edit the API resource before creating

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files to use to create the resource

---

-h, --help

---

help for create

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--raw string

Raw URI to POST to the server. Uses the transport specified by the kubeconfig file.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--windows-line-endings

Only relevant if --edit=true. Defaults to the line ending native to your platform.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager
- kubectl create clusterrole - Create a cluster role
- kubectl create clusterrolebinding - Create a cluster role binding for a particular cluster role
- kubectl create configmap - Create a config map from a local file, directory or literal value
- kubectl create cronjob - Create a cron job with the specified name
- kubectl create deployment - Create a deployment with the specified name
- kubectl create ingress - Create an ingress with the specified name
- kubectl create job - Create a job with the specified name
- kubectl create namespace - Create a namespace with the specified name

- [kubectl create poddisruptionbudget](#) - Create a pod disruption budget with the specified name
- [kubectl create priorityclass](#) - Create a priority class with the specified name
- [kubectl create quota](#) - Create a quota with the specified name
- [kubectl create role](#) - Create a role with single rule
- [kubectl create rolebinding](#) - Create a role binding for a particular role or cluster role
- [kubectl create secret](#) - Create a secret using a specified subcommand
- [kubectl create service](#) - Create a service using a specified subcommand
- [kubectl create serviceaccount](#) - Create a service account with the specified name
- [kubectl create token](#) - Request a service account token

- [kubectl create poddisruptionbudget](#) - Create a pod disruption budget with the specified name
- [kubectl create priorityclass](#) - Create a priority class with the specified name
- [kubectl create quota](#) - Create a quota with the specified name
- [kubectl create role](#) - Create a role with single rule
- [kubectl create rolebinding](#) - Create a role binding for a particular role or cluster role

11.3.15.1 - kubectl create clusterrole

Synopsis

Create a cluster role.

```
kubectl create clusterrole NAME --verb=verb --resource=resource.group
```

Examples

```
# Create a cluster role named "pod-reader" that allows user to perf
kubectl create clusterrole pod-reader --verb=get,list,watch --resou

# Create a cluster role named "pod-reader" with ResourceName specif
kubectl create clusterrole pod-reader --verb=get --resource=pods --

# Create a cluster role named "foo" with API Group specified
kubectl create clusterrole foo --verb=get,list,watch --resource=rs.

# Create a cluster role named "foo" with SubResource specified
kubectl create clusterrole foo --verb=get,list,watch --resource=pod

# Create a cluster role name "foo" with NonResourceURL specified
kubectl create clusterrole "foo" --verb=get --non-resource-url=/log

# Create a cluster role name "monitoring" with AggregationRule spec
kubectl create clusterrole monitoring --aggregation-rule="rbac.exam
```

Options

--aggregation-rule <comma-separated 'key=value' pairs>

An aggregation label selector for combining ClusterRoles.

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

help for clusterrole

--non-resource-url strings

A partial url that user should have access to.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--resource strings

Resource that the rule applies to

--resource-name strings

Resource in the white list that the rule applies to, repeat this flag for multiple items

---

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--verb strings

Verb that applies to the resources contained in the rule

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.2 - kubectl create clusterrolebinding

Synopsis

Create a cluster role binding for a particular cluster role.

```
kubectl create clusterrolebinding NAME --clusterrole=NAME [--user=use
```

Examples

```
# Create a cluster role binding for user1, user2, and group1 using
kubectl create clusterrolebinding cluster-admin --clusterrole=clust
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--clusterrole string

ClusterRole this ClusterRoleBinding should reference

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--group strings

Groups to bind to the clusterrole. The flag can be repeated to add multiple groups.

-h, --help

---

help for clusterrolebinding

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--serviceaccount strings

Service accounts to bind to the clusterrole, in the format <namespace>:<name>. The flag can be repeated to add multiple service accounts.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--user strings

Usernames to bind to the clusterrole. The flag can be repeated to add multiple users.

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.3 - kubectl create configmap

Synopsis

Create a config map based on a file, directory, or specified literal value.

A single config map may package one or more key/value pairs.

When creating a config map based on a file, the key will default to the basename of the file, and the value will default to the file content. If the basename is an invalid key, you may specify an alternate key.

When creating a config map based on a directory, each file whose basename is a valid key in the directory will be packaged into the config map. Any directory entries except regular files are ignored (e.g. subdirectories, symlinks, devices, pipes, etc).

```
kubectl create configmap NAME [--from-file=[key=]source] [--from-lite
```

Examples

```
# Create a new config map named my-config based on folder bar
kubectl create configmap my-config --from-file=path/to/bar

# Create a new config map named my-config with specified keys inste
kubectl create configmap my-config --from-file=key1=/path/to/bar/fi

# Create a new config map named my-config with key1=config1 and key
kubectl create configmap my-config --from-literal=key1=config1 --fr

# Create a new config map named my-config from the key=value pairs
kubectl create configmap my-config --from-file=path/to/bar

# Create a new config map named my-config from an env file
kubectl create configmap my-config --from-env-file=path/to/foo.env
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--append-hash

Append a hash of the configmap to its name.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--from-env-file strings

Specify the path to a file to read lines of key=val pairs to create a configmap.

--from-file strings

Key file can be specified using its file path, in which case file basename will be used as configmap key, or optionally with a key and file path, in which case the given key will be used. Specifying a directory will iterate each named file in the directory whose basename is a valid configmap key.

--from-literal strings

Specify a key and literal value to insert in configmap (i.e. mykey=somevalue)

-h, --help

help for configmap

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.4 - kubectl create cronjob

Synopsis

Create a cron job with the specified name.

```
kubectl create cronjob NAME --image=image --schedule='0/5 * * * ?' --
```

Examples

```
# Create a cron job
kubectl create cronjob my-job --image=busybox --schedule="*/1 * * *

# Create a cron job with a command
kubectl create cronjob my-job --image=busybox --schedule="*/1 * * *
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the
template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for cronjob

--image string

Image name to run.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template,
templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--restart string

---

job's restart policy. supported values: OnFailure, Never

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--schedule string

A schedule in the Cron format the job should be run with.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.5 - kubectl create deployment

Synopsis

Create a deployment with the specified name.

```
kubectl create deployment NAME --image=image -- [COMMAND] [args...]
```

Examples

```
# Create a deployment named my-dep that runs the busybox image
kubectl create deployment my-dep --image=busybox

# Create a deployment with a command
kubectl create deployment my-dep --image=busybox -- date

# Create a deployment named my-dep that runs the nginx image with 3
kubectl create deployment my-dep --image=nginx --replicas=3

# Create a deployment named my-dep that runs the busybox image and
kubectl create deployment my-dep --image=busybox --port=5701

# Create a deployment named my-dep that runs multiple containers
kubectl create deployment my-dep --image=busybox:latest --image=ubu
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for deployment

--image strings

Image names to run. A deployment can have multiple images set for multi-container pod.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--port int32   Default: -1

The containerPort that this deployment exposes.

-r, --replicas int32   Default: 1

Number of replicas to create. Default is 1.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

  If present, the namespace scope for this CLI request

--password string

  Password for basic authentication to the API server

--profile string   Default: "none"

  Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
  mutex)

--profile-output string   Default: "profile.pprof"

  Name of the file to write the profile to

--request-timeout string   Default: "0"

  The length of time to wait before giving up on a single server request. Non-zero
  values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
  means don't timeout requests.

-s, --server string

  The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

  Writes in the storage driver will be buffered for this duration, and committed to the
  non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

  database name

--storage-driver-host string   Default: "localhost:8086"

  database host:port

--storage-driver-password string   Default: "root"

  database password

--storage-driver-secure

  use secure connection with database

--storage-driver-table string   Default: "stats"

  table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.6 - kubectl create ingress

Synopsis

Create an ingress with the specified name.

```
kubectl create ingress NAME --rule=host/path=service:port[,tls[=secre
```

Examples

```
# Create a single ingress called 'simple' that directs requests to
# svc1:8080 with a TLS secret "my-cert"
kubectl create ingress simple --rule="foo.com/bar=svc1:8080,tls=my-

# Create a catch all ingress of "/path" pointing to service svc:por
kubectl create ingress catch-all --class=otheringress --rule="/path

# Create an ingress with two annotations: ingress.annotation1 and i
kubectl create ingress annotated --class=default --rule="foo.com/ba
--annotation ingress.annotation1=foo \
--annotation ingress.annotation2=bla

# Create an ingress with the same host and multiple paths
kubectl create ingress multipath --class=default \
--rule="foo.com/=svc:port" \
--rule="foo.com/admin/=svcadmin:portadmin"

# Create an ingress with multiple hosts and the pathType as Prefix
kubectl create ingress ingress1 --class=default \
--rule="foo.com/path*=svc:8080" \
--rule="bar.com/admin*=svc2:http"

# Create an ingress with TLS enabled using the default ingress cert
kubectl create ingress ingtls --class=default \
--rule="foo.com/=svc:https,tls" \
--rule="foo.com/path/subpath*=othersvc:8080"

# Create an ingress with TLS enabled using a specific secret and pa
kubectl create ingress ingsecret --class=default \
--rule="foo.com/*=svc:8080,tls=secret1"

# Create an ingress with a default backend
kubectl create ingress ingdefault --class=default \
--default-backend=defaultsvc:http \
--rule="foo.com/*=svc:8080,tls=secret1"
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--annotation strings

Annotation to insert in the ingress object, in the format annotation=value

---

--class string

Ingress Class to be used

--default-backend string

Default service for backend, in format of svcname:port

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

help for ingress

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--rule strings

Rule in format host/path=service:port[,tls=secretname]. Paths containing the leading character '*' are considered pathType=Prefix. tls argument is optional.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid.
It will perform server side validation if ServerSideFieldValidation is enabled on the
api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if
server-side field validation is enabled on the API server, and behave as "ignore"
otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any
unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.7 - kubectl create job

Synopsis

Create a job with the specified name.

```
kubectl create job NAME --image=image [--from=cronjob/name] -- [COMMA
```

Examples

```
# Create a job
kubectl create job my-job --image=busybox

# Create a job with a command
kubectl create job my-job --image=busybox -- date

# Create a job from a cron job named "a-cronjob"
kubectl create job test-job --from=cronjob/a-cronjob
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the
template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--from string

The name of the resource to create a Job from (only cronjob is supported).

-h, --help

---

help for job

--image string

Image name to run.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

    Path to a client certificate file for TLS

--client-key string

    Path to a client key file for TLS

--cluster string

    The name of the kubeconfig cluster to use

--context string

    The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
    added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
    added by default to every pod that does not already have such a toleration.

--disable-compression

    If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

    If true, the server's certificate will not be checked for validity. This will make your
    HTTPS connections insecure

--kubeconfig string

    Path to the kubeconfig file to use for CLI requests.

--match-server-version

    Require server version to match client version

-n, --namespace string

    If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl create - Create a resource from a file or from stdin

11.3.15.8 - kubectl create namespace

Synopsis

Create a namespace with the specified name.

```
kubectl create namespace NAME [--dry-run=server|client|none]
```

Examples

```
# Create a new namespace named my-namespace
kubectl create namespace my-namespace
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for namespace

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

> The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
> added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
> added by default to every pod that does not already have such a toleration.

--disable-compression

> If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

> If true, the server's certificate will not be checked for validity. This will make your
> HTTPS connections insecure

--kubeconfig string

> Path to the kubeconfig file to use for CLI requests.

--match-server-version

> Require server version to match client version

-n, --namespace string

> If present, the namespace scope for this CLI request

--password string

> Password for basic authentication to the API server

--profile string   Default: "none"

> Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
> mutex)

--profile-output string   Default: "profile.pprof"

> Name of the file to write the profile to

--request-timeout string   Default: "0"

> The length of time to wait before giving up on a single server request. Non-zero
> values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
> means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl create - Create a resource from a file or from stdin

11.3.15.9 - kubectl create poddisruptionbudget

Synopsis

Create a pod disruption budget with the specified name, selector, and desired minimum available pods.

```
kubectl create poddisruptionbudget NAME --selector=SELECTOR --min-ava
```

Examples

```
# Create a pod disruption budget named my-pdb that will select all
# and require at least one of them being available at any point in
kubectl create poddisruptionbudget my-pdb --selector=app=rails --mi

# Create a pod disruption budget named my-pdb that will select all
# and require at least half of the pods selected to be available at
kubectl create pdb my-pdb --selector=app=nginx --min-available=50%
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for poddisruptionbudget

--max-unavailable string

The maximum number or percentage of unavailable pods this budget requires.

--min-available string

The minimum number or percentage of available pods this budget requires.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--selector string

A label selector to use for this budget. Only equality-based selector requirements are supported.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z… sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.10 - kubectl create priorityclass

Synopsis

Create a priority class with the specified name, value, globalDefault and description.

```
kubectl create priorityclass NAME --value=VALUE --global-default=BOOL
```

Examples

```
# Create a priority class named high-priority
kubectl create priorityclass high-priority --value=1000 --descripti

# Create a priority class named default-priority that is considered
kubectl create priorityclass default-priority --value=1000 --global

# Create a priority class named high-priority that cannot preempt p
kubectl create priorityclass high-priority --value=1000 --descripti
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--description string

---

description is an arbitrary string that usually provides guidelines on when this priority class should be used.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--global-default

---

global-default specifies whether this PriorityClass should be considered as the default priority.

-h, --help

---

help for priorityclass

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--preemption-policy string   Default: "PreemptLowerPriority"

preemption-policy is the policy for preempting pods with lower priority.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--value int32

the value of this priority class.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.11 - kubectl create quota

Synopsis

Create a resource quota with the specified name, hard limits, and optional scopes.

```
kubectl create quota NAME [--hard=key1=value1,key2=value2] [--scopes=
```

Examples

```
# Create a new resource quota named my-quota
kubectl create quota my-quota --hard=cpu=1,memory=1G,pods=2,service

# Create a new resource quota named best-effort
kubectl create quota best-effort --hard=pods=100 --scopes=BestEffor
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--hard string

A comma-delimited set of resource=quantity pairs that define a hard limit.

-h, --help

---

help for quota

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--scopes string

A comma-delimited set of quota scopes that must all match each object tracked by the quota.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl create - Create a resource from a file or from stdin

11.3.15.12 - kubectl create role

Synopsis

Create a role with single rule.

```
kubectl create role NAME --verb=verb --resource=resource.group/subres
```

Examples

```
# Create a role named "pod-reader" that allows user to perform "get
kubectl create role pod-reader --verb=get --verb=list --verb=watch

# Create a role named "pod-reader" with ResourceName specified
kubectl create role pod-reader --verb=get --resource=pods --resourc

# Create a role named "foo" with API Group specified
kubectl create role foo --verb=get,list,watch --resource=rs.apps

# Create a role named "foo" with SubResource specified
kubectl create role foo --verb=get,list,watch --resource=pods,pods/
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

help for role

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--resource strings

Resource that the rule applies to

--resource-name strings

Resource in the white list that the rule applies to, repeat this flag for multiple items

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--verb strings

Verb that applies to the resources contained in the rule

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

  Default cache directory

--certificate-authority string

  Path to a cert file for the certificate authority

--client-certificate string

  Path to a client certificate file for TLS

--client-key string

  Path to a client key file for TLS

--cluster string

  The name of the kubeconfig cluster to use

--context string

  The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

  Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
  added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

  Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
  added by default to every pod that does not already have such a toleration.

--disable-compression

  If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

  If true, the server's certificate will not be checked for validity. This will make your
  HTTPS connections insecure

--kubeconfig string

  Path to the kubeconfig file to use for CLI requests.

--match-server-version

  Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

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11.3.15.13 - kubectl create rolebinding

Synopsis

Create a role binding for a particular role or cluster role.

```
kubectl create rolebinding NAME --clusterrole=NAME|--role=NAME [--use
```

Examples

```
# Create a role binding for user1, user2, and group1 using the admi
kubectl create rolebinding admin --clusterrole=admin --user=user1 -

# Create a role binding for service account monitoring:sa-dev using
kubectl create rolebinding admin-binding --role=admin --serviceacco
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--clusterrole string

ClusterRole this RoleBinding should reference

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--group strings

Groups to bind to the role. The flag can be repeated to add multiple groups.

-h, --help

---

help for rolebinding

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--role string

Role this RoleBinding should reference

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--serviceaccount strings

Service accounts to bind to the role, in the format <namespace>:<name>. The flag can be repeated to add multiple service accounts.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--user strings

Usernames to bind to the role. The flag can be repeated to add multiple users.

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.14 - kubectl create secret

Synopsis

Create a secret with specified type.

A docker-registry type secret is for accessing a container registry.

A generic type secret indicate an Opaque secret type.

A tls type secret holds TLS certificate and its associated key.

```
kubectl create secret (docker-registry | generic | tls)
```

Options

-h, --help

> help for secret

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string　　Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration　　Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string　　Default: "cadvisor"

---

database name

--storage-driver-host string　　Default: "localhost:8086"

---

database host:port

--storage-driver-password string　　Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string　　Default: "stats"

---

table name

--storage-driver-user string　　Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin
- [kubectl create secret docker-registry](#) - Create a secret for use with a Docker registry
- [kubectl create secret generic](#) - Create a secret from a local file, directory, or literal value
- [kubectl create secret tls](#) - Create a TLS secret

11.3.15.15 - kubectl create secret docker-registry

Synopsis

Create a new secret for use with Docker registries.

```
    Dockercfg secrets are used to authenticate against Docker registr

    When using the Docker command line to push images, you can authen
    '$ docker login DOCKER_REGISTRY_SERVER --username=DOCKER_USER --p
```

That produces a ~/.dockercfg file that is used by subsequent 'docker push' and 'docker pull' commands to authenticate to the registry. The email address is optional.

```
    When creating applications, you may have a Docker registry that r
    nodes to pull images on your behalf, they must have the credentia
    by creating a dockercfg secret and attaching it to your service a
```

```
 kubectl create secret docker-registry NAME --docker-username=user --d
```

Examples

```
 # If you do not already have a .dockercfg file, create a dockercfg
 kubectl create secret docker-registry my-secret --docker-server=DOC

 # Create a new secret named my-secret from ~/.docker/config.json
 kubectl create secret docker-registry my-secret --from-file=path/to
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--append-hash

Append a hash of the secret to its name.

--docker-email string

Email for Docker registry

--docker-password string

Password for Docker registry authentication

--docker-server string   Default: "https://index.docker.io/v1/"

Server location for Docker registry

--docker-username string

Username for Docker registry authentication

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--from-file strings

Key files can be specified using their file path, in which case a default name of
.dockerconfigjson will be given to them, or optionally with a name and file path, in
which case the given name will be used. Specifying a directory will iterate each
named file in the directory that is a valid secret key. For this command, the key
should always be .dockerconfigjson.

-h, --help

help for docker-registry

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template,
templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise,
the annotation will be unchanged. This flag is useful when you want to perform
kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-
file. The template format is golang templates [http://golang.org/pkg/text/template/
#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid.
It will perform server side validation if ServerSideFieldValidation is enabled on the
api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if
server-side field validation is enabled on the API server, and behave as "ignore"
otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any
unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create secret](#) - Create a secret using a specified subcommand

11.3.15.16 - kubectl create secret generic

Synopsis

Create a secret based on a file, directory, or specified literal value.

A single secret may package one or more key/value pairs.

When creating a secret based on a file, the key will default to the basename of the file, and the value will default to the file content. If the basename is an invalid key or you wish to chose your own, you may specify an alternate key.

When creating a secret based on a directory, each file whose basename is a valid key in the directory will be packaged into the secret. Any directory entries except regular files are ignored (e.g. subdirectories, symlinks, devices, pipes, etc).

```
kubectl create secret generic NAME [--type=string] [--from-file=[key=
```

Examples

```
# Create a new secret named my-secret with keys for each file in fo
kubectl create secret generic my-secret --from-file=path/to/bar

# Create a new secret named my-secret with specified keys instead o
kubectl create secret generic my-secret --from-file=ssh-privatekey=

# Create a new secret named my-secret with key1=supersecret and key
kubectl create secret generic my-secret --from-literal=key1=superse

# Create a new secret named my-secret using a combination of a file
kubectl create secret generic my-secret --from-file=ssh-privatekey=

# Create a new secret named my-secret from env files
kubectl create secret generic my-secret --from-env-file=path/to/foo
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--append-hash

Append a hash of the secret to its name.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

--from-env-file strings

Specify the path to a file to read lines of key=val pairs to create a secret.

--from-file strings

Key files can be specified using their file path, in which case a default name will be given to them, or optionally with a name and file path, in which case the given name will be used. Specifying a directory will iterate each named file in the directory that is a valid secret key.

--from-literal strings

Specify a key and literal value to insert in secret (i.e. mykey=somevalue)

-h, --help

---

help for generic

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--type string

The type of secret to create

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid.
It will perform server side validation if ServerSideFieldValidation is enabled on the
api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if
server-side field validation is enabled on the API server, and behave as "ignore"
otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any
unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

---

See Also

- [kubectl create secret](#) - Create a secret using a specified subcommand

11.3.15.17 - kubectl create secret tls

Synopsis

Create a TLS secret from the given public/private key pair.

The public/private key pair must exist beforehand. The public key certificate must be .PEM encoded and match the given private key.

```
kubectl create secret tls NAME --cert=path/to/cert/file --key=path/to
```

Examples

```
# Create a new TLS secret named tls-secret with the given key pair
kubectl create secret tls tls-secret --cert=path/to/tls.crt --key=p
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--append-hash

Append a hash of the secret to its name.

--cert string

Path to PEM encoded public key certificate.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for tls

--key string

Path to private key associated with given certificate.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

> Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
> mutex)

--profile-output string   Default: "profile.pprof"

> Name of the file to write the profile to

--request-timeout string   Default: "0"

> The length of time to wait before giving up on a single server request. Non-zero
> values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
> means don't timeout requests.

-s, --server string

> The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

> Writes in the storage driver will be buffered for this duration, and committed to the
> non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

> database name

--storage-driver-host string   Default: "localhost:8086"

> database host:port

--storage-driver-password string   Default: "root"

> database password

--storage-driver-secure

> use secure connection with database

--storage-driver-table string   Default: "stats"

> table name

--storage-driver-user string   Default: "root"

> database username

--tls-server-name string

> Server name to use for server certificate validation. If it is not provided, the hostname
> used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create secret](#) - Create a secret using a specified subcommand

11.3.15.18 - kubectl create service

Synopsis

Create a service using a specified subcommand.

```
kubectl create service [flags]
```

Options

-h, --help

help for service

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin
- [kubectl create service clusterip](#) - Create a ClusterIP service
- [kubectl create service externalname](#) - Create an ExternalName service
- [kubectl create service loadbalancer](#) - Create a LoadBalancer service
- [kubectl create service nodeport](#) - Create a NodePort service

11.3.15.19 - kubectl create service clusterip

Synopsis

Create a ClusterIP service with the specified name.

```
kubectl create service clusterip NAME [--tcp=<port>:<targetPort>] [--
```

Examples

```
# Create a new ClusterIP service named my-cs
kubectl create service clusterip my-cs --tcp=5678:8080

# Create a new ClusterIP service named my-cs (in headless mode)
kubectl create service clusterip my-cs --clusterip="None"
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--clusterip string

Assign your own ClusterIP or set to 'None' for a 'headless' service (no loadbalancing).

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for clusterip

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--tcp strings

Port pairs can be specified as '<port>:<targetPort>'.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create service](#) - Create a service using a specified subcommand

11.3.15.20 - kubectl create service externalname

Synopsis

Create an ExternalName service with the specified name.

ExternalName service references to an external DNS address instead of only pods, which will allow application authors to reference services that exist off platform, on other clusters, or locally.

```
kubectl create service externalname NAME --external-name external.nam
```

Examples

```
# Create a new ExternalName service named my-ns
kubectl create service externalname my-ns --external-name bar.com
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--external-name string

External name of service

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for externalname

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--tcp strings

Port pairs can be specified as '<port>:<targetPort>'.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl create service - Create a service using a specified subcommand

11.3.15.21 - kubectl create service loadbalancer

Synopsis

Create a LoadBalancer service with the specified name.

```
kubectl create service loadbalancer NAME [--tcp=port:targetPort] [--d
```

Examples

```
# Create a new LoadBalancer service named my-lbs
kubectl create service loadbalancer my-lbs --tcp=5678:8080
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for loadbalancer

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--tcp strings

Port pairs can be specified as '<port>:<targetPort>'.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

    The name of the kubeconfig cluster to use

--context string

    The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

    If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

    If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

    Path to the kubeconfig file to use for CLI requests.

--match-server-version

    Require server version to match client version

-n, --namespace string

    If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

    Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

    Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create service](#) - Create a service using a specified subcommand

11.3.15.22 - kubectl create service nodeport

Synopsis

Create a NodePort service with the specified name.

```
kubectl create service nodeport NAME [--tcp=port:targetPort] [--dry-r
```

Examples

```
# Create a new NodePort service named my-ns
kubectl create service nodeport my-ns --tcp=5678:8080
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the
template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for nodeport

--node-port int

Port used to expose the service on each node in a cluster.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template,
templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise,
the annotation will be unchanged. This flag is useful when you want to perform
kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--tcp strings

Port pairs can be specified as '<port>:<targetPort>'.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

> The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
> added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
> added by default to every pod that does not already have such a toleration.

--disable-compression

> If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

> If true, the server's certificate will not be checked for validity. This will make your
> HTTPS connections insecure

--kubeconfig string

> Path to the kubeconfig file to use for CLI requests.

--match-server-version

> Require server version to match client version

-n, --namespace string

> If present, the namespace scope for this CLI request

--password string

> Password for basic authentication to the API server

--profile string   Default: "none"

> Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
> mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl create service - Create a service using a specified subcommand

11.3.15.23 - kubectl create serviceaccount

Synopsis

Create a service account with the specified name.

```
kubectl create serviceaccount NAME [--dry-run=server|client|none]
```

Examples

```
# Create a new service account named my-service-account
kubectl create serviceaccount my-service-account
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-create"

Name of the manager used to track field ownership.

-h, --help

---

help for serviceaccount

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.15.24 - kubectl create token

Synopsis

Request a service account token.

```
kubectl create token SERVICE_ACCOUNT_NAME
```

Examples

```
# Request a token to authenticate to the kube-apiserver as the serv
kubectl create token myapp

# Request a token for a service account in a custom namespace
kubectl create token myapp --namespace myns

# Request a token with a custom expiration
kubectl create token myapp --duration 10m

# Request a token with a custom audience
kubectl create token myapp --audience https://example.com

# Request a token bound to an instance of a Secret object
kubectl create token myapp --bound-object-kind Secret --bound-objec

# Request a token bound to an instance of a Secret object with a sp
kubectl create token myapp --bound-object-kind Secret --bound-objec
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--audience strings

Audience of the requested token. If unset, defaults to requesting a token for use with the Kubernetes API server. May be repeated to request a token valid for multiple audiences.

--bound-object-kind string

Kind of an object to bind the token to. Supported kinds are Node, Pod, Secret. If set, --bound-object-name must be provided.

--bound-object-name string

Name of an object to bind the token to. The token will expire when the object is deleted. Requires --bound-object-kind.

--bound-object-uid string

UID of an object to bind the token to. Requires --bound-object-kind and --bound-object-name. If unset, the UID of the existing object is used.

--duration duration

Requested lifetime of the issued token. If not set or if set to 0, the lifetime will be determined by the server automatically. The server may return a token with a longer or shorter lifetime.

-h, --help

help for token

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl create](#) - Create a resource from a file or from stdin

11.3.16 - kubectl debug

Synopsis

Debug cluster resources using interactive debugging containers.

'debug' provides automation for common debugging tasks for cluster objects identified by resource and name. Pods will be used by default if no resource is specified.

The action taken by 'debug' varies depending on what resource is specified. Supported actions include:

- Workload: Create a copy of an existing pod with certain attributes changed, for example changing the image tag to a new version.
- Workload: Add an ephemeral container to an already running pod, for example to add debugging utilities without restarting the pod.
- Node: Create a new pod that runs in the node's host namespaces and can access the node's filesystem.

```
kubectl debug (POD | TYPE[[.VERSION].GROUP]/NAME) [ -- COMMAND [args.
```

Examples

```
# Create an interactive debugging session in pod mypod and immediat
kubectl debug mypod -it --image=busybox

# Create an interactive debugging session for the pod in the file p
# (requires the EphemeralContainers feature to be enabled in the cl
kubectl debug -f pod.yaml -it --image=busybox

# Create a debug container named debugger using a custom automated
kubectl debug --image=myproj/debug-tools -c debugger mypod

# Create a copy of mypod adding a debug container and attach to it
kubectl debug mypod -it --image=busybox --copy-to=my-debugger

# Create a copy of mypod changing the command of mycontainer
kubectl debug mypod -it --copy-to=my-debugger --container=mycontain

# Create a copy of mypod changing all container images to busybox
kubectl debug mypod --copy-to=my-debugger --set-image=*=busybox

# Create a copy of mypod adding a debug container and changing cont
kubectl debug mypod -it --copy-to=my-debugger --image=debian --set-

# Create an interactive debugging session on a node and immediately
# The container will run in the host namespaces and the host's file
kubectl debug node/mynode -it --image=busybox
```

Options

--arguments-only

If specified, everything after -- will be passed to the new container as Args instead of Command.

--attach

If true, wait for the container to start running, and then attach as if 'kubectl attach ...' were called. Default false, unless '-i/--stdin' is set, in which case the default is true.

-c, --container string

Container name to use for debug container.

--copy-to string

Create a copy of the target Pod with this name.

--custom string

Path to a JSON or YAML file containing a partial container spec to customize built-in debug profiles.

--env stringToString   Default: []

Environment variables to set in the container.

-f, --filename strings

identifying the resource to debug

-h, --help

help for debug

--image string

Container image to use for debug container.

--image-pull-policy string

The image pull policy for the container. If left empty, this value will not be specified by the client and defaulted by the server.

--keep-annotations

If true, keep the original pod annotations.(This flag only works when used with '--copy-to')

--keep-init-containers   Default: true

Run the init containers for the pod. Defaults to true.(This flag only works when used with '--copy-to')

--keep-labels

If true, keep the original pod labels.(This flag only works when used with '--copy-to')

--keep-liveness

If true, keep the original pod liveness probes.(This flag only works when used with '--copy-to')

--keep-readiness

If true, keep the original pod readiness probes.(This flag only works when used with '--copy-to')

--keep-startup

If true, keep the original startup probes.(This flag only works when used with '--copy-to')

--profile string   Default: "legacy"

Options are "legacy", "general", "baseline", "netadmin", "restricted" or "sysadmin".

-q, --quiet

If true, suppress informational messages.

--replace

When used with '--copy-to', delete the original Pod.

--same-node

When used with '--copy-to', schedule the copy of target Pod on the same node.

--set-image stringToString   Default: []

When used with '--copy-to', a list of name=image pairs for changing container images, similar to how 'kubectl set image' works.

--share-processes   Default: true

When used with '--copy-to', enable process namespace sharing in the copy.

-i, --stdin

Keep stdin open on the container(s) in the pod, even if nothing is attached.

--target string

When using an ephemeral container, target processes in this container name.

-t, --tty

Allocate a TTY for the debugging container.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager

11.3.17 - kubectl delete

Synopsis

Delete resources by file names, stdin, resources and names, or by resources and label selector.

JSON and YAML formats are accepted. Only one type of argument may be specified: file names, resources and names, or resources and label selector.

Some resources, such as pods, support graceful deletion. These resources define a default period before they are forcibly terminated (the grace period) but you may override that value with the --grace-period flag, or pass --now to set a grace-period of 1. Because these resources often represent entities in the cluster, deletion may not be acknowledged immediately. If the node hosting a pod is down or cannot reach the API server, termination may take significantly longer than the grace period. To force delete a resource, you must specify the --force flag. Note: only a subset of resources support graceful deletion. In absence of the support, the --grace-period flag is ignored.

IMPORTANT: Force deleting pods does not wait for confirmation that the pod's processes have been terminated, which can leave those processes running until the node detects the deletion and completes graceful deletion. If your processes use shared storage or talk to a remote API and depend on the name of the pod to identify themselves, force deleting those pods may result in multiple processes running on different machines using the same identification which may lead to data corruption or inconsistency. Only force delete pods when you are sure the pod is terminated, or if your application can tolerate multiple copies of the same pod running at once. Also, if you force delete pods, the scheduler may place new pods on those nodes before the node has released those resources and causing those pods to be evicted immediately.

Note that the delete command does NOT do resource version checks, so if someone submits an update to a resource right when you submit a delete, their update will be lost along with the rest of the resource.

After a CustomResourceDefinition is deleted, invalidation of discovery cache may take up to 6 hours. If you don't want to wait, you might want to run "kubectl api-resources" to refresh the discovery cache.

```
kubectl delete ([-f FILENAME] | [-k DIRECTORY] | TYPE [(NAME | -l lab
```

Examples

```
# Delete a pod using the type and name specified in pod.json
kubectl delete -f ./pod.json

# Delete resources from a directory containing kustomization.yaml -
kubectl delete -k dir

# Delete resources from all files that end with '.json'
kubectl delete -f '*.json'

# Delete a pod based on the type and name in the JSON passed into s
cat pod.json | kubectl delete -f -

# Delete pods and services with same names "baz" and "foo"
kubectl delete pod,service baz foo

# Delete pods and services with label name=myLabel
kubectl delete pods,services -l name=myLabel

# Delete a pod with minimal delay
kubectl delete pod foo --now

# Force delete a pod on a dead node
kubectl delete pod foo --force

# Delete all pods
kubectl delete pods --all
```

Options

--all

Delete all resources, in the namespace of the specified resource types.

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--cascade string[="background"]   Default: "background"

Must be "background", "orphan", or "foreground". Selects the deletion cascading strategy for the dependents (e.g. Pods created by a ReplicationController). Defaults to background.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-selector string

Selector (field query) to filter on, supports '=', '==', and '!='.(e.g. --field-selector key1=value1,key2=value2). The server only supports a limited number of field queries per type.

-f, --filename strings

containing the resource to delete.

--force

> If true, immediately remove resources from API and bypass graceful deletion. Note that immediate deletion of some resources may result in inconsistency or data loss and requires confirmation.

--grace-period int   Default: -1

> Period of time in seconds given to the resource to terminate gracefully. Ignored if negative. Set to 1 for immediate shutdown. Can only be set to 0 when --force is true (force deletion).

-h, --help

> help for delete

--ignore-not-found

> Treat "resource not found" as a successful delete. Defaults to "true" when --all is specified.

-i, --interactive

> If true, delete resource only when user confirms.

-k, --kustomize string

> Process a kustomization directory. This flag can't be used together with -f or -R.

--now

> If true, resources are signaled for immediate shutdown (same as --grace-period=1).

-o, --output string

> Output mode. Use "-o name" for shorter output (resource/name).

--raw string

> Raw URI to DELETE to the server. Uses the transport specified by the kubeconfig file.

-R, --recursive

> Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

> Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--timeout duration

The length of time to wait before giving up on a delete, zero means determine a timeout from the size of the object

---

--wait   Default: true

If true, wait for resources to be gone before returning. This waits for finalizers.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
> added by default to every pod that does not already have such a toleration.

--disable-compression

> If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

> If true, the server's certificate will not be checked for validity. This will make your
> HTTPS connections insecure

--kubeconfig string

> Path to the kubeconfig file to use for CLI requests.

--match-server-version

> Require server version to match client version

-n, --namespace string

> If present, the namespace scope for this CLI request

--password string

> Password for basic authentication to the API server

--profile string   Default: "none"

> Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
> mutex)

--profile-output string   Default: "profile.pprof"

> Name of the file to write the profile to

--request-timeout string   Default: "0"

> The length of time to wait before giving up on a single server request. Non-zero
> values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
> means don't timeout requests.

-s, --server string

> The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

> Writes in the storage driver will be buffered for this duration, and committed to the
> non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager

11.3.18 - kubectl describe

Synopsis

Show details of a specific resource or group of resources.

Print a detailed description of the selected resources, including related resources such as events or controllers. You may select a single object by name, all objects of that type, provide a name prefix, or label selector. For example:

```
$ kubectl describe TYPE NAME_PREFIX
```

will first check for an exact match on TYPE and NAME_PREFIX. If no such resource exists, it will output details for every resource that has a name prefixed with NAME_PREFIX.

Use "kubectl api-resources" for a complete list of supported resources.

```
kubectl describe (-f FILENAME | TYPE [NAME_PREFIX | -l label] | TYPE/
```

Examples

```
# Describe a node
kubectl describe nodes kubernetes-node-emt8.c.myproject.internal

# Describe a pod
kubectl describe pods/nginx

# Describe a pod identified by type and name in "pod.json"
kubectl describe -f pod.json

# Describe all pods
kubectl describe pods

# Describe pods by label name=myLabel
kubectl describe pods -l name=myLabel

# Describe all pods managed by the 'frontend' replication controlle
# (rc-created pods get the name of the rc as a prefix in the pod na
kubectl describe pods frontend
```

Options

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--chunk-size int   Default: 500

Return large lists in chunks rather than all at once. Pass 0 to disable. This flag is beta and may change in the future.

-f, --filename strings

Filename, directory, or URL to files containing the resource to describe

---

-h, --help

help for describe

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-events   Default: true

If true, display events related to the described object.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

    Path to a client key file for TLS

--cluster string

    The name of the kubeconfig cluster to use

--context string

    The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
    added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

    Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
    added by default to every pod that does not already have such a toleration.

--disable-compression

    If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

    If true, the server's certificate will not be checked for validity. This will make your
    HTTPS connections insecure

--kubeconfig string

    Path to the kubeconfig file to use for CLI requests.

--match-server-version

    Require server version to match client version

-n, --namespace string

    If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

    Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
    mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

    Username for basic authentication to the API server

--version version[=true]

    --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

    Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.19 - kubectl diff

Synopsis

Diff configurations specified by file name or stdin between the current online configuration, and the configuration as it would be if applied.

The output is always YAML.

KUBECTL_EXTERNAL_DIFF environment variable can be used to select your own diff command. Users can use external commands with params too, example: KUBECTL_EXTERNAL_DIFF="colordiff -N -u"

By default, the "diff" command available in your path will be run with the "-u" (unified diff) and "-N" (treat absent files as empty) options.

Exit status: 0 No differences were found. 1 Differences were found. >1 Kubectl or diff failed with an error.

Note: KUBECTL_EXTERNAL_DIFF, if used, is expected to follow that convention.

```
kubectl diff -f FILENAME
```

Examples

```
# Diff resources included in pod.json
kubectl diff -f pod.json

# Diff file read from stdin
cat service.yaml | kubectl diff -f -
```

Options

--concurrency int   Default: 1

Number of objects to process in parallel when diffing against the live version. Larger number = faster, but more memory, I/O and CPU over that shorter period of time.

--field-manager string   Default: "kubectl-client-side-apply"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files contains the configuration to diff

---

--force-conflicts

If true, server-side apply will force the changes against conflicts.

-h, --help

---

help for diff

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--prune

Include resources that would be deleted by pruning. Can be used with -l and default shows all resources would be pruned

--prune-allowlist strings

Overwrite the default allowlist with <group/version/kind> for --prune

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--server-side

If true, apply runs in the server instead of the client.

--show-managed-fields

If true, include managed fields in the diff.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.20 - kubectl drain

Synopsis

Drain node in preparation for maintenance.

The given node will be marked unschedulable to prevent new pods from arriving. 'drain' evicts the pods if the API server supports https://kubernetes.io/docs/concepts/workloads/pods/disruptions/ eviction https://kubernetes.io/docs/concepts/workloads/pods/disruptions/ . Otherwise, it will use normal DELETE to delete the pods. The 'drain' evicts or deletes all pods except mirror pods (which cannot be deleted through the API server). If there are daemon set-managed pods, drain will not proceed without --ignore-daemonsets, and regardless it will not delete any daemon set-managed pods, because those pods would be immediately replaced by the daemon set controller, which ignores unschedulable markings. If there are any pods that are neither mirror pods nor managed by a replication controller, replica set, daemon set, stateful set, or job, then drain will not delete any pods unless you use --force. --force will also allow deletion to proceed if the managing resource of one or more pods is missing.

'drain' waits for graceful termination. You should not operate on the machine until the command completes.

When you are ready to put the node back into service, use kubectl uncordon, which will make the node schedulable again.

https://kubernetes.io/images/docs/kubectl_drain.svg Workflowhttps://kubernetes.io/images/docs/kubectl_drain.svg

```
kubectl drain NODE
```

Examples

```
# Drain node "foo", even if there are pods not managed by a replica
kubectl drain foo --force

# As above, but abort if there are pods not managed by a replicatio
kubectl drain foo --grace-period=900
```

Options

--chunk-size int   Default: 500

Return large lists in chunks rather than all at once. Pass 0 to disable. This flag is beta and may change in the future.

--delete-emptydir-data

Continue even if there are pods using emptyDir (local data that will be deleted when the node is drained).

--disable-eviction

Force drain to use delete, even if eviction is supported. This will bypass checking PodDisruptionBudgets, use with caution.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--force

Continue even if there are pods that do not declare a controller.

--grace-period int   Default: -1

Period of time in seconds given to each pod to terminate gracefully. If negative, the default value specified in the pod will be used.

-h, --help

help for drain

--ignore-daemonsets

Ignore DaemonSet-managed pods.

--pod-selector string

Label selector to filter pods on the node

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--skip-wait-for-delete-timeout int

If pod DeletionTimestamp older than N seconds, skip waiting for the pod. Seconds must be greater than 0 to skip.

--timeout duration

The length of time to wait before giving up, zero means infinite

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

  Require server version to match client version

-n, --namespace string

  If present, the namespace scope for this CLI request

--password string

  Password for basic authentication to the API server

--profile string   Default: "none"

  Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
  mutex)

--profile-output string   Default: "profile.pprof"

  Name of the file to write the profile to

--request-timeout string   Default: "0"

  The length of time to wait before giving up on a single server request. Non-zero
  values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
  means don't timeout requests.

-s, --server string

  The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

  Writes in the storage driver will be buffered for this duration, and committed to the
  non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

  database name

--storage-driver-host string   Default: "localhost:8086"

  database host:port

--storage-driver-password string   Default: "root"

  database password

--storage-driver-secure

  use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.21 - kubectl edit

Synopsis

Edit a resource from the default editor.

The edit command allows you to directly edit any API resource you can retrieve via the command-line tools. It will open the editor defined by your KUBE_EDITOR, or EDITOR environment variables, or fall back to 'vi' for Linux or 'notepad' for Windows. When attempting to open the editor, it will first attempt to use the shell that has been defined in the 'SHELL' environment variable. If this is not defined, the default shell will be used, which is '/bin/bash' for Linux or 'cmd' for Windows.

You can edit multiple objects, although changes are applied one at a time. The command accepts file names as well as command-line arguments, although the files you point to must be previously saved versions of resources.

Editing is done with the API version used to fetch the resource. To edit using a specific API version, fully-qualify the resource, version, and group.

The default format is YAML. To edit in JSON, specify "-o json".

The flag --windows-line-endings can be used to force Windows line endings, otherwise the default for your operating system will be used.

In the event an error occurs while updating, a temporary file will be created on disk that contains your unapplied changes. The most common error when updating a resource is another editor changing the resource on the server. When this occurs, you will have to apply your changes to the newer version of the resource, or update your temporary saved copy to include the latest resource version.

```
kubectl edit (RESOURCE/NAME | -f FILENAME)
```

Examples

```
# Edit the service named 'registry'
kubectl edit svc/registry

# Use an alternative editor
KUBE_EDITOR="nano" kubectl edit svc/registry

# Edit the job 'myjob' in JSON using the v1 API format
kubectl edit job.v1.batch/myjob -o json

# Edit the deployment 'mydeployment' in YAML and save the modified
kubectl edit deployment/mydeployment -o yaml --save-config

# Edit the 'status' subresource for the 'mydeployment' deployment
kubectl edit deployment mydeployment --subresource='status'
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the
template. Only applies to golang and jsonpath output formats.

--field-manager string   Default: "kubectl-edit"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files to use to edit the resource

---

-h, --help

help for edit

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template,
templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--output-patch

Output the patch if the resource is edited.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to
manage related manifests organized within the same directory.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise,
the annotation will be unchanged. This flag is useful when you want to perform
kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--subresource string

If specified, edit will operate on the subresource of the requested object. Must be
one of [status]. This flag is beta and may change in the future.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-
file. The template format is golang templates [http://golang.org/pkg/text/template/
#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid.
It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--windows-line-endings

Defaults to the line ending native to your platform.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.22 - kubectl events

Synopsis

Display events.

Prints a table of the most important information about events. You can request events for a namespace, for all namespace, or filtered to only those pertaining to a specified resource.

```
kubectl events [(-o|--output=)json|yaml|name|go-template|go-template-
```

Examples

```
# List recent events in the default namespace
kubectl events

# List recent events in all namespaces
kubectl events --all-namespaces

# List recent events for the specified pod, then wait for more even
kubectl events --for pod/web-pod-13je7 --watch

# List recent events in YAML format
kubectl events -oyaml

# List recent only events of type 'Warning' or 'Normal'
kubectl events --types=Warning,Normal
```

Options

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--chunk-size int   Default: 500

Return large lists in chunks rather than all at once. Pass 0 to disable. This flag is beta and may change in the future.

--for string

Filter events to only those pertaining to the specified resource.

-h, --help

help for events

--no-headers

When using the default output format, don't print headers.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--types strings

Output only events of given types.

-w, --watch

After listing the requested events, watch for more events.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.23 - kubectl exec

Synopsis

Execute a command in a container.

```
kubectl exec (POD | TYPE/NAME) [-c CONTAINER] [flags] -- COMMAND [arg
```

Examples

```
# Get output from running the 'date' command from pod mypod, using
kubectl exec mypod -- date

# Get output from running the 'date' command in ruby-container from
kubectl exec mypod -c ruby-container -- date

# Switch to raw terminal mode; sends stdin to 'bash' in ruby-contai
# and sends stdout/stderr from 'bash' back to the client
kubectl exec mypod -c ruby-container -i -t -- bash -il

# List contents of /usr from the first container of pod mypod and s
# If the command you want to execute in the pod has any flags in co
# you must use two dashes (--) to separate your command's flags/arg
# Also note, do not surround your command and its flags/arguments w
# unless that is how you would execute it normally (i.e., do ls -t
kubectl exec mypod -i -t -- ls -t /usr

# Get output from running 'date' command from the first pod of the
kubectl exec deploy/mydeployment -- date

# Get output from running 'date' command from the first pod of the
kubectl exec svc/myservice -- date
```

Options

-c, --container string

Container name. If omitted, use the kubectl.kubernetes.io/default-container
annotation for selecting the container to be attached or the first container in the pod
will be chosen

-f, --filename strings

---

to use to exec into the resource

-h, --help

---

help for exec

--pod-running-timeout duration   Default: 1m0s

The length of time (like 5s, 2m, or 3h, higher than zero) to wait until at least one pod
is running

-q, --quiet

Only print output from the remote session

-i, --stdin

Pass stdin to the container

-t, --tty

Stdin is a TTY

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

> Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

> database name

--storage-driver-host string   Default: "localhost:8086"

> database host:port

--storage-driver-password string   Default: "root"

> database password

--storage-driver-secure

> use secure connection with database

--storage-driver-table string   Default: "stats"

> table name

--storage-driver-user string   Default: "root"

> database username

--tls-server-name string

> Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

> Bearer token for authentication to the API server

--user string

> The name of the kubeconfig user to use

--username string

> Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.24 - kubectl explain

Synopsis

Describe fields and structure of various resources.

This command describes the fields associated with each supported API resource. Fields are identified via a simple JSONPath identifier:

```
<type>.<fieldName>[.<fieldName>]
```

Information about each field is retrieved from the server in OpenAPI format.

Use "kubectl api-resources" for a complete list of supported resources.

```
kubectl explain TYPE [--recursive=FALSE|TRUE] [--api-version=api-vers
```

Examples

```
# Get the documentation of the resource and its fields
kubectl explain pods

# Get all the fields in the resource
kubectl explain pods --recursive

# Get the explanation for deployment in supported api versions
kubectl explain deployments --api-version=apps/v1

# Get the documentation of a specific field of a resource
kubectl explain pods.spec.containers

# Get the documentation of resources in different format
kubectl explain deployment --output=plaintext-openapiv2
```

Options

--api-version string

Use given api-version (group/version) of the resource.

-h, --help

help for explain

--output string   Default: "plaintext"

Format in which to render the schema. Valid values are: (plaintext, plaintext-openapiv2).

--recursive

When true, print the name of all the fields recursively. Otherwise, print the available fields with their description.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.25 - kubectl expose

Synopsis

Expose a resource as a new Kubernetes service.

Looks up a deployment, service, replica set, replication controller or pod by name and uses the selector for that resource as the selector for a new service on the specified port. A deployment or replica set will be exposed as a service only if its selector is convertible to a selector that service supports, i.e. when the selector contains only the matchLabels component. Note that if no port is specified via --port and the exposed resource has multiple ports, all will be re-used by the new service. Also if no labels are specified, the new service will re-use the labels from the resource it exposes.

Possible resources include (case insensitive):

pod (po), service (svc), replicationcontroller (rc), deployment (deploy), replicaset (rs)

```
kubectl expose (-f FILENAME | TYPE NAME) [--port=port] [--protocol=TC
```

Examples

```
# Create a service for a replicated nginx, which serves on port 80
kubectl expose rc nginx --port=80 --target-port=8000

# Create a service for a replication controller identified by type
kubectl expose -f nginx-controller.yaml --port=80 --target-port=800

# Create a service for a pod valid-pod, which serves on port 444 wi
kubectl expose pod valid-pod --port=444 --name=frontend

# Create a second service based on the above service, exposing the
kubectl expose service nginx --port=443 --target-port=8443 --name=n

# Create a service for a replicated streaming application on port 4
kubectl expose rc streamer --port=4100 --protocol=UDP --name=video-

# Create a service for a replicated nginx using replica set, which
kubectl expose rs nginx --port=80 --target-port=8000

# Create a service for an nginx deployment, which serves on port 80
kubectl expose deployment nginx --port=80 --target-port=8000
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--cluster-ip string

ClusterIP to be assigned to the service. Leave empty to auto-allocate, or set to 'None' to create a headless service.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--external-ip string

Additional external IP address (not managed by Kubernetes) to accept for the service. If this IP is routed to a node, the service can be accessed by this IP in addition to its generated service IP.

--field-manager string   Default: "kubectl-expose"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to expose a service

---

-h, --help

---

help for expose

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-l, --labels string

Labels to apply to the service created by this call.

--load-balancer-ip string

IP to assign to the LoadBalancer. If empty, an ephemeral IP will be created and used (cloud-provider specific).

--name string

The name for the newly created object.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--override-type string   Default: "merge"

The method used to override the generated object: json, merge, or strategic.

--overrides string

An inline JSON override for the generated object. If this is non-empty, it is used to override the generated object. Requires that the object supply a valid apiVersion field.

--port string

The port that the service should serve on. Copied from the resource being exposed, if unspecified

--protocol string

The network protocol for the service to be created. Default is 'TCP'.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--selector string

A label selector to use for this service. Only equality-based selector requirements are supported. If empty (the default) infer the selector from the replication controller or replica set.)

--session-affinity string

If non-empty, set the session affinity for the service to this; legal values: 'None', 'ClientIP'

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--target-port string

Name or number for the port on the container that the service should direct traffic to. Optional.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--type string

Type for this service: ClusterIP, NodePort, LoadBalancer, or ExternalName. Default is 'ClusterIP'.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager

11.3.26 - kubectl get

Synopsis

Display one or many resources.

Prints a table of the most important information about the specified resources. You can filter the list using a label selector and the --selector flag. If the desired resource type is namespaced you will only see results in the current namespace if you don't specify any namespace.

By specifying the output as 'template' and providing a Go template as the value of the --template flag, you can filter the attributes of the fetched resources.

Use "kubectl api-resources" for a complete list of supported resources.

```
kubectl get [(-o|--output=)json|yaml|name|go-template|go-template-fil
```

Examples

```
# List all pods in ps output format
kubectl get pods

# List all pods in ps output format with more information (such as
kubectl get pods -o wide

# List a single replication controller with specified NAME in ps ou
kubectl get replicationcontroller web

# List deployments in JSON output format, in the "v1" version of th
kubectl get deployments.v1.apps -o json

# List a single pod in JSON output format
kubectl get -o json pod web-pod-13je7

# List a pod identified by type and name specified in "pod.yaml" in
kubectl get -f pod.yaml -o json

# List resources from a directory with kustomization.yaml - e.g. di
kubectl get -k dir/

# Return only the phase value of the specified pod
kubectl get -o template pod/web-pod-13je7 --template={{.status.phas

# List resource information in custom columns
kubectl get pod test-pod -o custom-columns=CONTAINER:.spec.containe

# List all replication controllers and services together in ps outp
kubectl get rc,services

# List one or more resources by their type and names
kubectl get rc/web service/frontend pods/web-pod-13je7

# List the 'status' subresource for a single pod
kubectl get pod web-pod-13je7 --subresource status

# List all deployments in namespace 'backend'
kubectl get deployments.apps --namespace backend

# List all pods existing in all namespaces
kubectl get pods --all-namespaces
```

Options

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--chunk-size int   Default: 500

Return large lists in chunks rather than all at once. Pass 0 to disable. This flag is beta and may change in the future.

--field-selector string

Selector (field query) to filter on, supports '=', '==', and '!='.(e.g. --field-selector key1=value1,key2=value2). The server only supports a limited number of field queries per type.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

help for get

--ignore-not-found

If the requested object does not exist the command will return exit code 0.

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-L, --label-columns strings

Accepts a comma separated list of labels that are going to be presented as columns. Names are case-sensitive. You can also use multiple flag options like -L label1 -L label2...

--no-headers

When using the default or custom-column output format, don't print headers (default print headers).

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file, custom-columns, custom-columns-file, wide). See custom columns [https://kubernetes.io/docs/reference/kubectl/#custom-columns], golang template [http://golang.org/pkg/text/template/#pkg-overview] and jsonpath template [https://kubernetes.io/docs/reference/kubectl/jsonpath/].

--output-watch-events

Output watch event objects when --watch or --watch-only is used. Existing objects are output as initial ADDED events.

--raw string

Raw URI to request from the server. Uses the transport specified by the kubeconfig file.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--server-print   Default: true

If true, have the server return the appropriate table output. Supports extension APIs and CRDs.

--show-kind

If present, list the resource type for the requested object(s).

--show-labels

When printing, show all labels as the last column (default hide labels column)

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--sort-by string

If non-empty, sort list types using this field specification. The field specification is expressed as a JSONPath expression (e.g. '{.metadata.name}'). The field in the API resource specified by this JSONPath expression must be an integer or a string.

--subresource string

If specified, gets the subresource of the requested object. Must be one of [status scale]. This flag is beta and may change in the future.

--template string

    Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

-w, --watch

    After listing/getting the requested object, watch for changes.

--watch-only

    Watch for changes to the requested object(s), without listing/getting first.

--as string

    Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

    Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

    UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

    Default cache directory

--certificate-authority string

    Path to a cert file for the certificate authority

--client-certificate string

    Path to a client certificate file for TLS

--client-key string

    Path to a client key file for TLS

--cluster string

    The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.27 - kubectl kustomize

Synopsis

Build a set of KRM resources using a 'kustomization.yaml' file. The DIR argument must be a path to a directory containing 'kustomization.yaml', or a git repository URL with a path suffix specifying same with respect to the repository root. If DIR is omitted, '.' is assumed.

```
kubectl kustomize DIR [flags]
```

Examples

```
# Build the current working directory
kubectl kustomize

# Build some shared configuration directory
kubectl kustomize /home/config/production

# Build from github
kubectl kustomize https://github.com/kubernetes-sigs/kustomize.git/
```

Options

--as-current-user

use the uid and gid of the command executor to run the function in the container

---

--enable-alpha-plugins

enable kustomize plugins

--enable-helm

Enable use of the Helm chart inflator generator.

-e, --env strings

a list of environment variables to be used by functions

--helm-api-versions strings

Kubernetes api versions used by Helm for Capabilities.APIVersions

---

--helm-command string   Default: "helm"

helm command (path to executable)

--helm-kube-version string

Kubernetes version used by Helm for Capabilities.KubeVersion

-h, --help

> help for kustomize

--load-restrictor string   Default: "LoadRestrictionsRootOnly"

> if set to 'LoadRestrictionsNone', local kustomizations may load files from outside
> their root. This does, however, break the relocatability of the kustomization.

--mount strings

> a list of storage options read from the filesystem

--network

> enable network access for functions that declare it

--network-name string   Default: "bridge"

> the docker network to run the container in

-o, --output string

> If specified, write output to this path.

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.28 - kubectl label

Synopsis

Update the labels on a resource.

- A label key and value must begin with a letter or number, and may contain letters, numbers, hyphens, dots, and underscores, up to 63 characters each.
- Optionally, the key can begin with a DNS subdomain prefix and a single '/', like example.com/my-app.
- If --overwrite is true, then existing labels can be overwritten, otherwise attempting to overwrite a label will result in an error.
- If --resource-version is specified, then updates will use this resource version, otherwise the existing resource-version will be used.

```
kubectl label [--overwrite] (-f FILENAME | TYPE NAME) KEY_1=VAL_1 ...
```

Examples

```
# Update pod 'foo' with the label 'unhealthy' and the value 'true'
kubectl label pods foo unhealthy=true

# Update pod 'foo' with the label 'status' and the value 'unhealthy
kubectl label --overwrite pods foo status=unhealthy

# Update all pods in the namespace
kubectl label pods --all status=unhealthy

# Update a pod identified by the type and name in "pod.json"
kubectl label -f pod.json status=unhealthy

# Update pod 'foo' only if the resource is unchanged from version 1
kubectl label pods foo status=unhealthy --resource-version=1

# Update pod 'foo' by removing a label named 'bar' if it exists
# Does not require the --overwrite flag
kubectl label pods foo bar-
```

Options

--all

Select all resources, in the namespace of the specified resource types

---

-A, --all-namespaces

If true, check the specified action in all namespaces.

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

> Must be "none", "server", or "client". If client strategy, only print the object that would
> be sent, without sending it. If server strategy, submit server-side request without
> persisting the resource.

--field-manager string   Default: "kubectl-label"

> Name of the manager used to track field ownership.

--field-selector string

> Selector (field query) to filter on, supports '=', '==', and '!='.(e.g. --field-selector
> key1=value1,key2=value2). The server only supports a limited number of field queries
> per type.

-f, --filename strings

> Filename, directory, or URL to files identifying the resource to update the labels

-h, --help

> help for label

-k, --kustomize string

> Process the kustomization directory. This flag can't be used together with -f or -R.

--list

> If true, display the labels for a given resource.

--local

> If true, label will NOT contact api-server but run locally.

-o, --output string

> Output format. One of: (json, yaml, name, go-template, go-template-file, template,
> templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--overwrite

> If true, allow labels to be overwritten, otherwise reject label updates that overwrite
> existing labels.

-R, --recursive

> Process the directory used in -f, --filename recursively. Useful when you want to
> manage related manifests organized within the same directory.

--resource-version string

> If non-empty, the labels update will only succeed if this is the current resource-
> version for the object. Only valid when specifying a single resource.

-l, --selector string

> Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l
> key1=value1,key2=value2). Matching objects must satisfy all of the specified label
> constraints.

--show-managed-fields

> If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

> Template string or path to template file to use when -o=go-template, -o=go-template-
> file. The template format is golang templates [http://golang.org/pkg/text/template/
> #pkg-overview].

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.29 - kubectl logs

Synopsis

Print the logs for a container in a pod or specified resource. If the pod has only one container, the container name is optional.

```
kubectl logs [-f] [-p] (POD | TYPE/NAME) [-c CONTAINER]
```

Examples

```
# Return snapshot logs from pod nginx with only one container
kubectl logs nginx

# Return snapshot logs from pod nginx with multi containers
kubectl logs nginx --all-containers=true

# Return snapshot logs from all containers in pods defined by label
kubectl logs -l app=nginx --all-containers=true

# Return snapshot of previous terminated ruby container logs from p
kubectl logs -p -c ruby web-1

# Begin streaming the logs of the ruby container in pod web-1
kubectl logs -f -c ruby web-1

# Begin streaming the logs from all containers in pods defined by l
kubectl logs -f -l app=nginx --all-containers=true

# Display only the most recent 20 lines of output in pod nginx
kubectl logs --tail=20 nginx

# Show all logs from pod nginx written in the last hour
kubectl logs --since=1h nginx

# Show logs from a kubelet with an expired serving certificate
kubectl logs --insecure-skip-tls-verify-backend nginx

# Return snapshot logs from first container of a job named hello
kubectl logs job/hello

# Return snapshot logs from container nginx-1 of a deployment named
kubectl logs deployment/nginx -c nginx-1
```

Options

--all-containers

Get all containers' logs in the pod(s).

--all-pods

Get logs from all pod(s). Sets prefix to true.

-c, --container string

Print the logs of this container

-f, --follow

Specify if the logs should be streamed.

-h, --help

help for logs

--ignore-errors

If watching / following pod logs, allow for any errors that occur to be non-fatal

---

--insecure-skip-tls-verify-backend

Skip verifying the identity of the kubelet that logs are requested from. In theory, an attacker could provide invalid log content back. You might want to use this if your kubelet serving certificates have expired.

--limit-bytes int

Maximum bytes of logs to return. Defaults to no limit.

--max-log-requests int   Default: 5

Specify maximum number of concurrent logs to follow when using by a selector. Defaults to 5.

--pod-running-timeout duration   Default: 20s

The length of time (like 5s, 2m, or 3h, higher than zero) to wait until at least one pod is running

---

--prefix

Prefix each log line with the log source (pod name and container name)

-p, --previous

If true, print the logs for the previous instance of the container in a pod if it exists.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--since duration

Only return logs newer than a relative duration like 5s, 2m, or 3h. Defaults to all logs. Only one of since-time / since may be used.

--since-time string

Only return logs after a specific date (RFC3339). Defaults to all logs. Only one of since-time / since may be used.

--tail int   Default: -1

Lines of recent log file to display. Defaults to -1 with no selector, showing all log lines otherwise 10, if a selector is provided.

--timestamps

Include timestamps on each line in the log output

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

> If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

> If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

> Path to the kubeconfig file to use for CLI requests.

--match-server-version

> Require server version to match client version

-n, --namespace string

> If present, the namespace scope for this CLI request

--password string

> Password for basic authentication to the API server

--profile string   Default: "none"

> Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

> Name of the file to write the profile to

--request-timeout string   Default: "0"

> The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

> The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

> Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

> database name

--storage-driver-host string   Default: "localhost:8086"

> database host:port

--storage-driver-password string   Default: "root"

> database password

--storage-driver-secure

> use secure connection with database

--storage-driver-table string   Default: "stats"

> table name

--storage-driver-user string   Default: "root"

> database username

--tls-server-name string

> Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

> Bearer token for authentication to the API server

--user string

> The name of the kubeconfig user to use

--username string

> Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager

11.3.30 - kubectl options

Synopsis

Print the list of flags inherited by all commands

```
kubectl options [flags]
```

Examples

```
# Print flags inherited by all commands
kubectl options
```

Options

-h, --help

     help for options

--as string

     Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

     Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

     UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

     Default cache directory

--certificate-authority string

     Path to a cert file for the certificate authority

--client-certificate string

     Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.31 - kubectl patch

Synopsis

Update fields of a resource using strategic merge patch, a JSON merge patch, or a JSON patch.

JSON and YAML formats are accepted.

Note: Strategic merge patch is not supported for custom resources.

```
kubectl patch (-f FILENAME | TYPE NAME) [-p PATCH|--patch-file FILE]
```

Examples

```
# Partially update a node using a strategic merge patch, specifying
kubectl patch node k8s-node-1 -p '{"spec":{"unschedulable":true}}'

# Partially update a node using a strategic merge patch, specifying
kubectl patch node k8s-node-1 -p $'spec:\n unschedulable: true'

# Partially update a node identified by the type and name specified
kubectl patch -f node.json -p '{"spec":{"unschedulable":true}}'

# Update a container's image; spec.containers[*].name is required b
kubectl patch pod valid-pod -p '{"spec":{"containers":[{"name":"kub

# Update a container's image using a JSON patch with positional arr
kubectl patch pod valid-pod --type='json' -p='[{"op": "replace", "p

# Update a deployment's replicas through the 'scale' subresource us
kubectl patch deployment nginx-deployment --subresource='scale' --t
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-patch"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to update

---

-h, --help

help for patch

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--local

If true, patch will operate on the content of the file, not the server-side resource.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-p, --patch string

The patch to be applied to the resource JSON file.

--patch-file string

A file containing a patch to be applied to the resource.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--subresource string

If specified, patch will operate on the subresource of the requested object. Must be one of [status scale]. This flag is beta and may change in the future.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--type string   Default: "strategic"

The type of patch being provided; one of [json merge strategic]

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.32 - kubectl plugin

Synopsis

Provides utilities for interacting with plugins.

Plugins provide extended functionality that is not part of the major command-line distribution. Please refer to the documentation and examples for more information about how write your own plugins.

The easiest way to discover and install plugins is via the kubernetes sub-project krew: [krew.sigs.k8s.io]. To install krew, visit https://krew.sigs.k8s.io/docs/user-guide/setup/install

```
kubectl plugin [flags]
```

Examples

```
# List all available plugins
kubectl plugin list

# List only binary names of available plugins without paths
kubectl plugin list --name-only
```

Options

-h, --help

---

help for plugin

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager
- [kubectl plugin list](#) - List all visible plugin executables on a user's PATH

11.3.32.1 - kubectl plugin list

Synopsis

List all available plugin files on a user's PATH. To see plugins binary names without the full path use --name-only flag.

Available plugin files are those that are: - executable - anywhere on the user's PATH - begin with "kubectl-"

```
kubectl plugin list [flags]
```

Examples

```
# List all available plugins
kubectl plugin list

# List only binary names of available plugins without paths
kubectl plugin list --name-only
```

Options

-h, --help

---

help for list

--name-only

If true, display only the binary name of each plugin, rather than its full path

---

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl plugin](#) - Provides utilities for interacting with plugins

11.3.33 - kubectl port-forward

Synopsis

Forward one or more local ports to a pod.

Use resource type/name such as deployment/mydeployment to select a pod. Resource type defaults to 'pod' if omitted.

If there are multiple pods matching the criteria, a pod will be selected automatically. The forwarding session ends when the selected pod terminates, and a rerun of the command is needed to resume forwarding.

```
kubectl port-forward TYPE/NAME [options] [LOCAL_PORT:]REMOTE_PORT [..
```

Examples

```
# Listen on ports 5000 and 6000 locally, forwarding data to/from po
kubectl port-forward pod/mypod 5000 6000

# Listen on ports 5000 and 6000 locally, forwarding data to/from po
kubectl port-forward deployment/mydeployment 5000 6000

# Listen on port 8443 locally, forwarding to the targetPort of the
kubectl port-forward service/myservice 8443:https

# Listen on port 8888 locally, forwarding to 5000 in the pod
kubectl port-forward pod/mypod 8888:5000

# Listen on port 8888 on all addresses, forwarding to 5000 in the p
kubectl port-forward --address 0.0.0.0 pod/mypod 8888:5000

# Listen on port 8888 on localhost and selected IP, forwarding to 5
kubectl port-forward --address localhost,10.19.21.23 pod/mypod 8888

# Listen on a random port locally, forwarding to 5000 in the pod
kubectl port-forward pod/mypod :5000
```

Options

--address strings   Default: "localhost"

Addresses to listen on (comma separated). Only accepts IP addresses or localhost as a value. When localhost is supplied, kubectl will try to bind on both 127.0.0.1 and ::1 and will fail if neither of these addresses are available to bind.

-h, --help

---

help for port-forward

--pod-running-timeout duration   Default: 1m0s

The length of time (like 5s, 2m, or 3h, higher than zero) to wait until at least one pod is running

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.34 - kubectl proxy

Synopsis

Creates a proxy server or application-level gateway between localhost and the Kubernetes API server. It also allows serving static content over specified HTTP path. All incoming data enters through one port and gets forwarded to the remote Kubernetes API server port, except for the path matching the static content path.

```
kubectl proxy [--port=PORT] [--www=static-dir] [--www-prefix=prefix]
```

Examples

```
# To proxy all of the Kubernetes API and nothing else
kubectl proxy --api-prefix=/

# To proxy only part of the Kubernetes API and also some static fil
# You can get pods info with 'curl localhost:8001/api/v1/pods'
kubectl proxy --www=/my/files --www-prefix=/static/ --api-prefix=/a

# To proxy the entire Kubernetes API at a different root
# You can get pods info with 'curl localhost:8001/custom/api/v1/pod
kubectl proxy --api-prefix=/custom/

# Run a proxy to the Kubernetes API server on port 8011, serving st
kubectl proxy --port=8011 --www=./local/www/

# Run a proxy to the Kubernetes API server on an arbitrary local po
# The chosen port for the server will be output to stdout
kubectl proxy --port=0

# Run a proxy to the Kubernetes API server, changing the API prefix
# This makes e.g. the pods API available at localhost:8001/k8s-api/
kubectl proxy --api-prefix=/k8s-api
```

Options

--accept-hosts string   Default: "^localhost$,^127\.0\.0\.1$,^\[::1\]$"

Regular expression for hosts that the proxy should accept.

--accept-paths string   Default: "^.*"

Regular expression for paths that the proxy should accept.

--address string   Default: "127.0.0.1"

The IP address on which to serve on.

--api-prefix string   Default: "/"

Prefix to serve the proxied API under.

--append-server-path

If true, enables automatic path appending of the kube context server path to each request.

--disable-filter

If true, disable request filtering in the proxy. This is dangerous, and can leave you vulnerable to XSRF attacks, when used with an accessible port.

-h, --help

help for proxy

--keepalive duration

keepalive specifies the keep-alive period for an active network connection. Set to 0 to disable keepalive.

-p, --port int   Default: 8001

The port on which to run the proxy. Set to 0 to pick a random port.

--reject-methods string   Default: "^$"

Regular expression for HTTP methods that the proxy should reject (example --reject-methods='POST,PUT,PATCH').

--reject-paths string   Default: "^/api/.*/pods/.*/exec, ^/api/.*/pods/.*/attach"

Regular expression for paths that the proxy should reject. Paths specified here will be rejected even accepted by --accept-paths.

-u, --unix-socket string

Unix socket on which to run the proxy.

-w, --www string

Also serve static files from the given directory under the specified prefix.

-P, --www-prefix string   Default: "/static/"

Prefix to serve static files under, if static file directory is specified.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string Default: "stats"

---

 table name

--storage-driver-user string Default: "root"

---

 database username

--tls-server-name string

 Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

 Bearer token for authentication to the API server

--user string

 The name of the kubeconfig user to use

--username string

 Username for basic authentication to the API server

--version version[=true]

 --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

 Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.35 - kubectl replace

Synopsis

Replace a resource by file name or stdin.

JSON and YAML formats are accepted. If replacing an existing resource, the complete resource spec must be provided. This can be obtained by

```
    $ kubectl get TYPE NAME -o yaml
```

```
 kubectl replace -f FILENAME
```

Examples

```
 # Replace a pod using the data in pod.json
 kubectl replace -f ./pod.json

 # Replace a pod based on the JSON passed into stdin
 cat pod.json | kubectl replace -f -

 # Update a single-container pod's image version (tag) to v4
 kubectl get pod mypod -o yaml | sed 's/\(image: myimage\):.*$/\1:v4

 # Force replace, delete and then re-create the resource
 kubectl replace --force -f ./pod.json
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--cascade string[="background"]   Default: "background"

Must be "background", "orphan", or "foreground". Selects the deletion cascading strategy for the dependents (e.g. Pods created by a ReplicationController). Defaults to background.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-replace"

Name of the manager used to track field ownership.

-f, --filename strings

The files that contain the configurations to replace.

--force

If true, immediately remove resources from API and bypass graceful deletion. Note that immediate deletion of some resources may result in inconsistency or data loss and requires confirmation.

--grace-period int   Default: -1

Period of time in seconds given to the resource to terminate gracefully. Ignored if negative. Set to 1 for immediate shutdown. Can only be set to 0 when --force is true (force deletion).

-h, --help

---

help for replace

-k, --kustomize string

Process a kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--raw string

Raw URI to PUT to the server. Uses the transport specified by the kubeconfig file.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--subresource string

If specified, replace will operate on the subresource of the requested object. Must be one of [status scale]. This flag is beta and may change in the future.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--timeout duration

The length of time to wait before giving up on a delete, zero means determine a timeout from the size of the object

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--wait

If true, wait for resources to be gone before returning. This waits for finalizers.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- kubectl - kubectl controls the Kubernetes cluster manager

11.3.36 - kubectl rollout

Synopsis

Manage the rollout of one or many resources.

Valid resource types include:

- deployments
- daemonsets
- statefulsets

```
kubectl rollout SUBCOMMAND
```

Examples

```
# Rollback to the previous deployment
kubectl rollout undo deployment/abc

# Check the rollout status of a daemonset
kubectl rollout status daemonset/foo

# Restart a deployment
kubectl rollout restart deployment/abc

# Restart deployments with the 'app=nginx' label
kubectl rollout restart deployment --selector=app=nginx
```

Options

-h, --help

help for rollout

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

    Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

    Name of the file to write the profile to

--request-timeout string   Default: "0"

    The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

    The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

    Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

    database name

--storage-driver-host string   Default: "localhost:8086"

    database host:port

--storage-driver-password string   Default: "root"

    database password

--storage-driver-secure

    use secure connection with database

--storage-driver-table string   Default: "stats"

    table name

--storage-driver-user string   Default: "root"

    database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager
- [kubectl rollout history](#) - View rollout history
- [kubectl rollout pause](#) - Mark the provided resource as paused
- [kubectl rollout restart](#) - Restart a resource
- [kubectl rollout resume](#) - Resume a paused resource
- [kubectl rollout status](#) - Show the status of the rollout
- [kubectl rollout undo](#) - Undo a previous rollout

11.3.36.1 - kubectl rollout history

Synopsis

View previous rollout revisions and configurations.

```
kubectl rollout history (TYPE NAME | TYPE/NAME) [flags]
```

Examples

```
# View the rollout history of a deployment
kubectl rollout history deployment/abc

# View the details of daemonset revision 3
kubectl rollout history daemonset/abc --revision=3
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for history

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--revision int

See the details, including podTemplate of the revision specified

-l, --selector string

> Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l
> key1=value1,key2=value2). Matching objects must satisfy all of the specified label
> constraints.

--show-managed-fields

> If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

> Template string or path to template file to use when -o=go-template, -o=go-template-
> file. The template format is golang templates [http://golang.org/pkg/text/template/
> #pkg-overview].

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.36.2 - kubectl rollout pause

Synopsis

Mark the provided resource as paused.

Paused resources will not be reconciled by a controller. Use "kubectl rollout resume" to resume a paused resource. Currently only deployments support being paused.

```
kubectl rollout pause RESOURCE
```

Examples

```
# Mark the nginx deployment as paused
# Any current state of the deployment will continue its function; n
# to the deployment will not have an effect as long as the deployme
kubectl rollout pause deployment/nginx
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--field-manager string   Default: "kubectl-rollout"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for pause

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.36.3 - kubectl rollout restart

Synopsis

Restart a resource.

```
    Resource rollout will be restarted.
```

```
  kubectl rollout restart RESOURCE
```

Examples

```
  # Restart all deployments in the test-namespace namespace
  kubectl rollout restart deployment -n test-namespace

  # Restart a deployment
  kubectl rollout restart deployment/nginx

  # Restart a daemon set
  kubectl rollout restart daemonset/abc

  # Restart deployments with the app=nginx label
  kubectl rollout restart deployment --selector=app=nginx
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--field-manager string   Default: "kubectl-rollout"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for restart

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.36.4 - kubectl rollout resume

Synopsis

Resume a paused resource.

Paused resources will not be reconciled by a controller. By resuming a resource, we allow it to be reconciled again. Currently only deployments support being resumed.

```
kubectl rollout resume RESOURCE
```

Examples

```
# Resume an already paused deployment
kubectl rollout resume deployment/nginx
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--field-manager string   Default: "kubectl-rollout"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for resume

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

> Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l
> key1=value1,key2=value2). Matching objects must satisfy all of the specified label
> constraints.

--show-managed-fields

> If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

> Template string or path to template file to use when -o=go-template, -o=go-template-
> file. The template format is golang templates [http://golang.org/pkg/text/template/
> #pkg-overview].

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.36.5 - kubectl rollout status

Synopsis

Show the status of the rollout.

By default 'rollout status' will watch the status of the latest rollout until it's done. If you don't want to wait for the rollout to finish then you can use --watch=false. Note that if a new rollout starts in-between, then 'rollout status' will continue watching the latest revision. If you want to pin to a specific revision and abort if it is rolled over by another revision, use --revision=N where N is the revision you need to watch for.

```
kubectl rollout status (TYPE NAME | TYPE/NAME) [flags]
```

Examples

```
# Watch the rollout status of a deployment
kubectl rollout status deployment/nginx
```

Options

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for status

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--revision int

Pin to a specific revision for showing its status. Defaults to 0 (last revision).

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--timeout duration

> The length of time to wait before ending watch, zero means never. Any other values
> should contain a corresponding time unit (e.g. 1s, 2m, 3h).

-w, --watch   Default: true

> Watch the status of the rollout until it's done.

--as string

> Username to impersonate for the operation. User could be a regular user or a service
> account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple
> groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

> The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.36.6 - kubectl rollout undo

Synopsis

Roll back to a previous rollout.

```
kubectl rollout undo (TYPE NAME | TYPE/NAME) [flags]
```

Examples

```
# Roll back to the previous deployment
kubectl rollout undo deployment/abc

# Roll back to daemonset revision 3
kubectl rollout undo daemonset/abc --to-revision=3

# Roll back to the previous deployment with dry-run
kubectl rollout undo --dry-run=server deployment/abc
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

---

help for undo

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--to-revision int

The revision to rollback to. Default to 0 (last revision).

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl rollout](#) - Manage the rollout of a resource

11.3.37 - **kubectl run**

Synopsis

Create and run a particular image in a pod.

```
kubectl run NAME --image=image [--env="key=value"] [--port=port] [--d
```

Examples

```
# Start a nginx pod
kubectl run nginx --image=nginx

# Start a hazelcast pod and let the container expose port 5701
kubectl run hazelcast --image=hazelcast/hazelcast --port=5701

# Start a hazelcast pod and set environment variables "DNS_DOMAIN=c
kubectl run hazelcast --image=hazelcast/hazelcast --env="DNS_DOMAIN

# Start a hazelcast pod and set labels "app=hazelcast" and "env=pro
kubectl run hazelcast --image=hazelcast/hazelcast --labels="app=haz

# Dry run; print the corresponding API objects without creating the
kubectl run nginx --image=nginx --dry-run=client

# Start a nginx pod, but overload the spec with a partial set of va
kubectl run nginx --image=nginx --overrides='{ "apiVersion": "v1",

# Start a busybox pod and keep it in the foreground, don't restart
kubectl run -i -t busybox --image=busybox --restart=Never

# Start the nginx pod using the default command, but use custom arg
kubectl run nginx --image=nginx -- <arg1> <arg2> ... <argN>

# Start the nginx pod using a different command and custom argument
kubectl run nginx --image=nginx --command -- <cmd> <arg1> ... <argN
```

Options

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--annotations strings

Annotations to apply to the pod.

--attach

If true, wait for the Pod to start running, and then attach to the Pod as if 'kubectl attach ...' were called. Default false, unless '-i/--stdin' is set, in which case the default is true. With '--restart=Never' the exit code of the container process is returned.

--cascade string[="background"]   Default: "background"

Must be "background", "orphan", or "foreground". Selects the deletion cascading strategy for the dependents (e.g. Pods created by a ReplicationController). Defaults to background.

--command

If true and extra arguments are present, use them as the 'command' field in the container, rather than the 'args' field which is the default.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--env strings

Environment variables to set in the container.

--expose --port

If true, create a ClusterIP service associated with the pod. Requires --port.

--field-manager string   Default: "kubectl-run"

Name of the manager used to track field ownership.

-f, --filename strings

to use to replace the resource.

--force

If true, immediately remove resources from API and bypass graceful deletion. Note that immediate deletion of some resources may result in inconsistency or data loss and requires confirmation.

--grace-period int   Default: -1

Period of time in seconds given to the resource to terminate gracefully. Ignored if negative. Set to 1 for immediate shutdown. Can only be set to 0 when --force is true (force deletion).

-h, --help

help for run

--image string

The image for the container to run.

--image-pull-policy string

The image pull policy for the container. If left empty, this value will not be specified by the client and defaulted by the server.

-k, --kustomize string

Process a kustomization directory. This flag can't be used together with -f or -R.

-l, --labels string

Comma separated labels to apply to the pod. Will override previous values.

--leave-stdin-open

If the pod is started in interactive mode or with stdin, leave stdin open after the first attach completes. By default, stdin will be closed after the first attach completes.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--override-type string   Default: "merge"

The method used to override the generated object: json, merge, or strategic.

--overrides string

An inline JSON override for the generated object. If this is non-empty, it is used to override the generated object. Requires that the object supply a valid apiVersion field.

--pod-running-timeout duration   Default: 1m0s

The length of time (like 5s, 2m, or 3h, higher than zero) to wait until at least one pod is running

--port string

The port that this container exposes.

--privileged

If true, run the container in privileged mode.

-q, --quiet

If true, suppress prompt messages.

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--restart string   Default: "Always"

The restart policy for this Pod. Legal values [Always, OnFailure, Never].

--rm

If true, delete the pod after it exits. Only valid when attaching to the container, e.g. with '--attach' or with '-i/--stdin'.

--save-config

If true, the configuration of current object will be saved in its annotation. Otherwise, the annotation will be unchanged. This flag is useful when you want to perform kubectl apply on this object in the future.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

-i, --stdin

Keep stdin open on the container in the pod, even if nothing is attached.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--timeout duration

The length of time to wait before giving up on a delete, zero means determine a timeout from the size of the object

-t, --tty

Allocate a TTY for the container in the pod.

--wait

If true, wait for resources to be gone before returning. This waits for finalizers.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

> Server name to use for server certificate validation. If it is not provided, the hostname
> used to contact the server is used

--token string

> Bearer token for authentication to the API server

--user string

> The name of the kubeconfig user to use

--username string

> Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
> the reported version

--warnings-as-errors

> Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.38 - kubectl scale

Synopsis

Set a new size for a deployment, replica set, replication controller, or stateful set.

Scale also allows users to specify one or more preconditions for the scale action.

If --current-replicas or --resource-version is specified, it is validated before the scale is attempted, and it is guaranteed that the precondition holds true when the scale is sent to the server.

```
kubectl scale [--resource-version=version] [--current-replicas=count]
```

Examples

```
# Scale a replica set named 'foo' to 3
kubectl scale --replicas=3 rs/foo

# Scale a resource identified by type and name specified in "foo.ya
kubectl scale --replicas=3 -f foo.yaml

# If the deployment named mysql's current size is 2, scale mysql to
kubectl scale --current-replicas=2 --replicas=3 deployment/mysql

# Scale multiple replication controllers
kubectl scale --replicas=5 rc/example1 rc/example2 rc/example3

# Scale stateful set named 'web' to 3
kubectl scale --replicas=3 statefulset/web
```

Options

--all

   Select all resources in the namespace of the specified resource types

--allow-missing-template-keys   Default: true

   If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--current-replicas int   Default: -1

   Precondition for current size. Requires that the current size of the resource match this value in order to scale. -1 (default) for no condition.

--dry-run string[="unchanged"]   Default: "none"

   Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to set a new size

-h, --help

help for scale

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--replicas int

The new desired number of replicas. Required.

--resource-version string

Precondition for resource version. Requires that the current resource version match this value in order to scale.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--timeout duration

The length of time to wait before giving up on a scale operation, zero means don't wait. Any other values should contain a corresponding time unit (e.g. 1s, 2m, 3h).

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.39 - kubectl set

Synopsis

Configure application resources.

These commands help you make changes to existing application resources.

```
kubectl set SUBCOMMAND
```

Options

-h, --help

    help for set

--as string

    Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

    Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

    UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

    Default cache directory

--certificate-authority string

    Path to a cert file for the certificate authority

--client-certificate string

    Path to a client certificate file for TLS

--client-key string

    Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

> --version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

> Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager
- [kubectl set env](#) - Update environment variables on a pod template
- [kubectl set image](#) - Update the image of a pod template
- [kubectl set resources](#) - Update resource requests/limits on objects with pod templates
- [kubectl set selector](#) - Set the selector on a resource
- [kubectl set serviceaccount](#) - Update the service account of a resource
- [kubectl set subject](#) - Update the user, group, or service account in a role binding or cluster role binding

11.3.39.1 - kubectl set env

Synopsis

Update environment variables on a pod template.

List environment variable definitions in one or more pods, pod templates. Add, update, or remove container environment variable definitions in one or more pod templates (within replication controllers or deployment configurations). View or modify the environment variable definitions on all containers in the specified pods or pod templates, or just those that match a wildcard.

If "--env -" is passed, environment variables can be read from STDIN using the standard env syntax.

Possible resources include (case insensitive):

```
        pod (po), replicationcontroller (rc), deployment (deploy), daemon
```

```
  kubectl set env RESOURCE/NAME KEY_1=VAL_1 ... KEY_N=VAL_N
```

Examples

```
  # Update deployment 'registry' with a new environment variable
  kubectl set env deployment/registry STORAGE_DIR=/local

  # List the environment variables defined on a deployments 'sample-b
  kubectl set env deployment/sample-build --list

  # List the environment variables defined on all pods
  kubectl set env pods --all --list

  # Output modified deployment in YAML, and does not alter the object
  kubectl set env deployment/sample-build STORAGE_DIR=/data -o yaml

  # Update all containers in all replication controllers in the proje
  kubectl set env rc --all ENV=prod

  # Import environment from a secret
  kubectl set env --from=secret/mysecret deployment/myapp

  # Import environment from a config map with a prefix
  kubectl set env --from=configmap/myconfigmap --prefix=MYSQL_ deploy

  # Import specific keys from a config map
  kubectl set env --keys=my-example-key --from=configmap/myconfigmap

  # Remove the environment variable ENV from container 'c1' in all de
  kubectl set env deployments --all --containers="c1" ENV-

  # Remove the environment variable ENV from a deployment definition
  # update the deployment config on the server
  kubectl set env -f deploy.json ENV-

  # Set some of the local shell environment into a deployment config
  env | grep RAILS_ | kubectl set env -e - deployment/registry
```

Options

--all

If true, select all resources in the namespace of the specified resource types

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

-c, --containers string   Default: "*"

The names of containers in the selected pod templates to change - may use wildcards

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

-e, --env strings

Specify a key-value pair for an environment variable to set into each container.

--field-manager string   Default: "kubectl-set"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files the resource to update the env

--from string

The name of a resource from which to inject environment variables

-h, --help

help for env

--keys strings

Comma-separated list of keys to import from specified resource

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--list

If true, display the environment and any changes in the standard format. this flag will removed when we have kubectl view env.

--local

If true, set env will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--overwrite   Default: true

If true, allow environment to be overwritten, otherwise reject updates that overwrite existing environment.

--prefix string

Prefix to append to variable names

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--resolve

If true, show secret or configmap references when listing variables

---

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](#) - Set specific features on objects

11.3.39.2 - kubectl set image

Synopsis

Update existing container image(s) of resources.

Possible resources include (case insensitive):

```
        pod (po), replicationcontroller (rc), deployment (deploy), daemon
```

```
 kubectl set image (-f FILENAME | TYPE NAME) CONTAINER_NAME_1=CONTAINE
```

Examples

```
 # Set a deployment's nginx container image to 'nginx:1.9.1', and it
 kubectl set image deployment/nginx busybox=busybox nginx=nginx:1.9.

 # Update all deployments' and rc's nginx container's image to 'ngin
 kubectl set image deployments,rc nginx=nginx:1.9.1 --all

 # Update image of all containers of daemonset abc to 'nginx:1.9.1'
 kubectl set image daemonset abc *=nginx:1.9.1

 # Print result (in yaml format) of updating nginx container image f
 kubectl set image -f path/to/file.yaml nginx=nginx:1.9.1 --local -o
```

Options

--all

Select all resources, in the namespace of the specified resource types

---

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the
template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

--field-manager string   Default: "kubectl-set"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

help for image

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--local

If true, set image will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int　　Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int　　Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

---

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

    Password for basic authentication to the API server

--profile string   Default: "none"

    Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

    Name of the file to write the profile to

--request-timeout string   Default: "0"

    The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

    The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

    Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

    database name

--storage-driver-host string   Default: "localhost:8086"

    database host:port

--storage-driver-password string   Default: "root"

    database password

--storage-driver-secure

    use secure connection with database

--storage-driver-table string   Default: "stats"

    table name

--storage-driver-user string   Default: "root"

    database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](#) - Set specific features on objects

11.3.39.3 - kubectl set resources

Synopsis

Specify compute resource requirements (CPU, memory) for any resource that defines a pod template. If a pod is successfully scheduled, it is guaranteed the amount of resource requested, but may burst up to its specified limits.

For each compute resource, if a limit is specified and a request is omitted, the request will default to the limit.

Possible resources include (case insensitive): Use "kubectl api-resources" for a complete list of supported resources..

```
kubectl set resources (-f FILENAME | TYPE NAME)  ([--limits=LIMITS &
```

Examples

```
# Set a deployments nginx container cpu limits to "200m" and memory
kubectl set resources deployment nginx -c=nginx --limits=cpu=200m,m

# Set the resource request and limits for all containers in nginx
kubectl set resources deployment nginx --limits=cpu=200m,memory=512

# Remove the resource requests for resources on containers in nginx
kubectl set resources deployment nginx --limits=cpu=0,memory=0 --re

# Print the result (in yaml format) of updating nginx container lim
kubectl set resources -f path/to/file.yaml --limits=cpu=200m,memory
```

Options

--all

Select all resources, in the namespace of the specified resource types

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

-c, --containers string   Default: "*"

The names of containers in the selected pod templates to change, all containers are selected by default - may use wildcards

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-set"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

help for resources

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--limits string

The resource requirement requests for this container. For example, 'cpu=100m,memory=256Mi'. Note that server side components may assign requests depending on the server configuration, such as limit ranges.

--local

If true, set resources will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--requests string

The resource requirement requests for this container. For example, 'cpu=100m,memory=256Mi'. Note that server side components may assign requests depending on the server configuration, such as limit ranges.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](#) - Set specific features on objects

11.3.39.4 - kubectl set selector

Synopsis

Set the selector on a resource. Note that the new selector will overwrite the old selector if the resource had one prior to the invocation of 'set selector'.

A selector must begin with a letter or number, and may contain letters, numbers, hyphens, dots, and underscores, up to 63 characters. If --resource-version is specified, then updates will use this resource version, otherwise the existing resource-version will be used. Note: currently selectors can only be set on Service objects.

```
kubectl set selector (-f FILENAME | TYPE NAME) EXPRESSIONS [--resourc
```

Examples

```
# Set the labels and selector before creating a deployment/service
kubectl create service clusterip my-svc --clusterip="None" -o yaml
kubectl create deployment my-dep -o yaml --dry-run=client | kubectl
```

Options

--all

Select all resources in the namespace of the specified resource types

---

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-set"

Name of the manager used to track field ownership.

-f, --filename strings

identifying the resource.

-h, --help

help for selector

--local

If true, annotation will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive   Default: true

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--resource-version string

If non-empty, the selectors update will only succeed if this is the current resource-version for the object. Only valid when specifying a single resource.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](kubectl-set) - Set specific features on objects

11.3.39.5 - kubectl set serviceaccount

Synopsis

Update the service account of pod template resources.

Possible resources (case insensitive) can be:

replicationcontroller (rc), deployment (deploy), daemonset (ds), job, replicaset (rs), statefulset

```
kubectl set serviceaccount (-f FILENAME | TYPE NAME) SERVICE_ACCOUNT
```

Examples

```
# Set deployment nginx-deployment's service account to serviceaccou
kubectl set serviceaccount deployment nginx-deployment serviceaccou

# Print the result (in YAML format) of updated nginx deployment wit
kubectl set sa -f nginx-deployment.yaml serviceaccount1 --local --d
```

Options

--all

Select all resources, in the namespace of the specified resource types

---

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-set"

Name of the manager used to track field ownership.

-f, --filename strings

Filename, directory, or URL to files identifying the resource to get from a server.

-h, --help

help for serviceaccount

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--local

If true, set serviceaccount will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](#) - Set specific features on objects

11.3.39.6 - kubectl set subject

Synopsis

Update the user, group, or service account in a role binding or cluster role binding.

```
kubectl set subject (-f FILENAME | TYPE NAME) [--user=username] [--gr
```

Examples

```
# Update a cluster role binding for serviceaccount1
kubectl set subject clusterrolebinding admin --serviceaccount=names

# Update a role binding for user1, user2, and group1
kubectl set subject rolebinding admin --user=user1 --user=user2 --g

# Print the result (in YAML format) of updating rolebinding subject
kubectl create rolebinding admin --role=admin --user=admin -o yaml
```

Options

--all

    Select all resources, in the namespace of the specified resource types

---

--allow-missing-template-keys   Default: true

    If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

    Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-set"

    Name of the manager used to track field ownership.

-f, --filename strings

    Filename, directory, or URL to files the resource to update the subjects

---

--group strings

    Groups to bind to the role

-h, --help

help for subject

-k, --kustomize string

Process the kustomization directory. This flag can't be used together with -f or -R.

--local

If true, set subject will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--serviceaccount strings

Service accounts to bind to the role

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--user strings

Usernames to bind to the role

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets
the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl set](#) - Set specific features on objects

11.3.40 - kubectl taint

Synopsis

Update the taints on one or more nodes.

- A taint consists of a key, value, and effect. As an argument here, it is expressed as key=value:effect.
- The key must begin with a letter or number, and may contain letters, numbers, hyphens, dots, and underscores, up to 253 characters.
- Optionally, the key can begin with a DNS subdomain prefix and a single '/', like example.com/my-app.
- The value is optional. If given, it must begin with a letter or number, and may contain letters, numbers, hyphens, dots, and underscores, up to 63 characters.
- The effect must be NoSchedule, PreferNoSchedule or NoExecute.
- Currently taint can only apply to node.

```
kubectl taint NODE NAME KEY_1=VAL_1:TAINT_EFFECT_1 ... KEY_N=VAL_N:TA
```

Examples

```
# Update node 'foo' with a taint with key 'dedicated' and value 'sp
# If a taint with that key and effect already exists, its value is
kubectl taint nodes foo dedicated=special-user:NoSchedule

# Remove from node 'foo' the taint with key 'dedicated' and effect
kubectl taint nodes foo dedicated:NoSchedule-

# Remove from node 'foo' all the taints with key 'dedicated'
kubectl taint nodes foo dedicated-

# Add a taint with key 'dedicated' on nodes having label myLabel=X
kubectl taint node -l myLabel=X  dedicated=foo:PreferNoSchedule

# Add to node 'foo' a taint with key 'bar' and no value
kubectl taint nodes foo bar:NoSchedule
```

Options

--all

Select all nodes in the cluster

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would be sent, without sending it. If server strategy, submit server-side request without persisting the resource.

--field-manager string   Default: "kubectl-taint"

Name of the manager used to track field ownership.

-h, --help

help for taint

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

--overwrite

If true, allow taints to be overwritten, otherwise reject taint updates that overwrite existing taints.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/#pkg-overview].

--validate string[="strict"]   Default: "strict"

Must be one of: strict (or true), warn, ignore (or false).
"true" or "strict" will use a schema to validate the input and fail the request if invalid. It will perform server side validation if ServerSideFieldValidation is enabled on the api-server, but will fall back to less reliable client-side validation if not.
"warn" will warn about unknown or duplicate fields without blocking the request if server-side field validation is enabled on the API server, and behave as "ignore" otherwise.
"false" or "ignore" will not perform any schema validation, silently dropping any unknown or duplicate fields.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.41 - kubectl top

Synopsis

Display resource (CPU/memory) usage.

The top command allows you to see the resource consumption for nodes or pods.

This command requires Metrics Server to be correctly configured and working on the server.

```
kubectl top [flags]
```

Options

-h, --help

help for top

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager
- [kubectl top node](#) - Display resource (CPU/memory) usage of nodes
- [kubectl top pod](#) - Display resource (CPU/memory) usage of pods

11.3.41.1 - kubectl top node

Synopsis

Display resource (CPU/memory) usage of nodes.

The top-node command allows you to see the resource consumption of nodes.

```
kubectl top node [NAME | -l label]
```

Examples

```
# Show metrics for all nodes
kubectl top node

# Show metrics for a given node
kubectl top node NODE_NAME
```

Options

-h, --help

---

help for node

--no-headers

If present, print output without headers

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2). Matching objects must satisfy all of the specified label constraints.

--show-capacity

Print node resources based on Capacity instead of Allocatable(default) of the nodes.

--sort-by string

If non-empty, sort nodes list using specified field. The field can be either 'cpu' or 'memory'.

--use-protocol-buffers   Default: true

Enables using protocol-buffers to access Metrics API.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

---

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl top](#) - Display resource (CPU/memory) usage

11.3.41.2 - kubectl top pod

Synopsis

Display resource (CPU/memory) usage of pods.

The 'top pod' command allows you to see the resource consumption of pods.

Due to the metrics pipeline delay, they may be unavailable for a few minutes since pod creation.

```
kubectl top pod [NAME | -l label]
```

Examples

```
# Show metrics for all pods in the default namespace
kubectl top pod

# Show metrics for all pods in the given namespace
kubectl top pod --namespace=NAMESPACE

# Show metrics for a given pod and its containers
kubectl top pod POD_NAME --containers

# Show metrics for the pods defined by label name=myLabel
kubectl top pod -l name=myLabel
```

Options

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--containers

If present, print usage of containers within a pod.

--field-selector string

Selector (field query) to filter on, supports '=', '==', and '!='.(e.g. --field-selector key1=value1,key2=value2). The server only supports a limited number of field queries per type.

-h, --help

---

help for pod

--no-headers

If present, print output without headers.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l
key1=value1,key2=value2). Matching objects must satisfy all of the specified label
constraints.

--sort-by string

If non-empty, sort pods list using specified field. The field can be either 'cpu' or
'memory'.

--sum

Print the sum of the resource usage

--use-protocol-buffers   Default: true

Enables using protocol-buffers to access Metrics API.

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

---

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl top](#) - Display resource (CPU/memory) usage

11.3.42 - kubectl uncordon

Synopsis

Mark node as schedulable.

```
kubectl uncordon NODE
```

Examples

```
# Mark node "foo" as schedulable
kubectl uncordon foo
```

Options

--dry-run string[="unchanged"]   Default: "none"

Must be "none", "server", or "client". If client strategy, only print the object that would
be sent, without sending it. If server strategy, submit server-side request without
persisting the resource.

-h, --help

---

help for uncordon

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l
key1=value1,key2=value2). Matching objects must satisfy all of the specified label
constraints.

--as string

Username to impersonate for the operation. User could be a regular user or a service
account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple
groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

use secure connection with database

--storage-driver-table string   Default: "stats"

table name

--storage-driver-user string   Default: "root"

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.43 - kubectl version

Synopsis

Print the client and server version information for the current context.

```
kubectl version [flags]
```

Examples

```
# Print the client and server versions for the current context
kubectl version
```

Options

--client

If true, shows client version only (no server required).

-h, --help

help for version

-o, --output string

One of 'yaml' or 'json'.

--as string

Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

Default cache directory

--certificate-authority string

Path to a cert file for the certificate authority

--client-certificate string

Path to a client certificate file for TLS

--client-key string

Path to a client key file for TLS

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

--disable-compression

If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|
mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero
values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero
means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the
non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

---

database name

--storage-driver-host string   Default: "localhost:8086"

---

database host:port

--storage-driver-password string   Default: "root"

---

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname
used to contact the server is used

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.3.44 - kubectl wait

Synopsis

Experimental: Wait for a specific condition on one or many resources.

The command takes multiple resources and waits until the specified condition is seen in the Status field of every given resource.

Alternatively, the command can wait for the given set of resources to be deleted by providing the "delete" keyword as the value to the --for flag.

A successful message will be printed to stdout indicating when the specified condition has been met. You can use -o option to change to output destination.

```
kubectl wait ([-f FILENAME] | resource.group/resource.name | resource
```

Examples

```
# Wait for the pod "busybox1" to contain the status condition of ty
kubectl wait --for=condition=Ready pod/busybox1

# The default value of status condition is true; you can wait for o
kubectl wait --for=condition=Ready=false pod/busybox1

# Wait for the pod "busybox1" to contain the status phase to be "Ru
kubectl wait --for=jsonpath='{.status.phase}'=Running pod/busybox1

# Wait for pod "busybox1" to be Ready
kubectl wait --for='jsonpath={.status.conditions[?(@.type=="Ready")

# Wait for the service "loadbalancer" to have ingress
kubectl wait --for=jsonpath='{.status.loadBalancer.ingress}' servic

# Wait for the pod "busybox1" to be deleted, with a timeout of 60s,
kubectl delete pod/busybox1
kubectl wait --for=delete pod/busybox1 --timeout=60s
```

Options

--all

Select all resources in the namespace of the specified resource types

---

-A, --all-namespaces

If present, list the requested object(s) across all namespaces. Namespace in current context is ignored even if specified with --namespace.

--allow-missing-template-keys   Default: true

If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to golang and jsonpath output formats.

--field-selector string

Selector (field query) to filter on, supports '=', '==', and '!='.(e.g. --field-selector key1=value1,key2=value2). The server only supports a limited number of field queries per type.

-f, --filename strings

identifying the resource.

--for string

The condition to wait on: [delete|condition=condition-name[=condition-value]| jsonpath='{JSONPath expression}'=[JSONPath value]]. The default condition-value is true. Condition values are compared after Unicode simple case folding, which is a more general form of case-insensitivity.

-h, --help

help for wait

--local

If true, annotation will NOT contact api-server but run locally.

-o, --output string

Output format. One of: (json, yaml, name, go-template, go-template-file, template, templatefile, jsonpath, jsonpath-as-json, jsonpath-file).

-R, --recursive   Default: true

Process the directory used in -f, --filename recursively. Useful when you want to manage related manifests organized within the same directory.

-l, --selector string

Selector (label query) to filter on, supports '=', '==', and '!='.(e.g. -l key1=value1,key2=value2)

--show-managed-fields

If true, keep the managedFields when printing objects in JSON or YAML format.

--template string

Template string or path to template file to use when -o=go-template, -o=go-template-file. The template format is golang templates [http://golang.org/pkg/text/template/ #pkg-overview].

--timeout duration   Default: 30s

The length of time to wait before giving up. Zero means check once and don't wait, negative means wait for a week.

--as string

> Username to impersonate for the operation. User could be a regular user or a service account in a namespace.

--as-group strings

> Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--as-uid string

> UID to impersonate for the operation.

--cache-dir string   Default: "$HOME/.kube/cache"

> Default cache directory

--certificate-authority string

> Path to a cert file for the certificate authority

--client-certificate string

> Path to a client certificate file for TLS

--client-key string

> Path to a client key file for TLS

--cluster string

> The name of the kubeconfig cluster to use

--context string

> The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

> Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--disable-compression

> If true, opt-out of response compression for all requests to the server

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block| mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--storage-driver-buffer-duration duration   Default: 1m0s

Writes in the storage driver will be buffered for this duration, and committed to the non memory backends as a single transaction

--storage-driver-db string   Default: "cadvisor"

database name

--storage-driver-host string   Default: "localhost:8086"

database host:port

--storage-driver-password string   Default: "root"

database password

--storage-driver-secure

---

use secure connection with database

--storage-driver-table string   Default: "stats"

---

table name

--storage-driver-user string   Default: "root"

---

database username

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--warnings-as-errors

Treat warnings received from the server as errors and exit with a non-zero exit code

See Also

- [kubectl](#) - kubectl controls the Kubernetes cluster manager

11.4 - kubectl Commands

[kubectl Command Reference](#)

11.5 - kubectl

Synopsis

kubectl controls the Kubernetes cluster manager.

Find more information in [Command line tool](#) (`kubectl`).

```
kubectl [flags]
```

Options

--add-dir-header

    If true, adds the file directory to the header of the log messages

---

--alsologtostderr

---

    log to standard error as well as files

--as string

    Username to impersonate for the operation

--as-group stringArray

    Group to impersonate for the operation, this flag can be repeated to specify multiple groups.

--azure-container-registry-config string

    Path to the file containing Azure container registry configuration information.

--cache-dir string   Default: "$HOME/.kube/cache"

    Default cache directory

--certificate-authority string

    Path to a cert file for the certificate authority

--client-certificate string

    Path to a client certificate file for TLS

--client-key string

    Path to a client key file for TLS

--cloud-provider-gce-l7lb-src-cidrs cidrs   Default: 130.211.0.0/22,35.191.0.0/16

    CIDRs opened in GCE firewall for L7 LB traffic proxy & health checks

---

--cloud-provider-gce-lb-src-cidrs cidrs   Default: 130.211.0.0/22,209.85.152.0/22,209.85.204.0/22,35.191.0.0/16

    CIDRs opened in GCE firewall for L4 LB traffic proxy & health checks

---

--cluster string

The name of the kubeconfig cluster to use

--context string

The name of the kubeconfig context to use

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is
added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is
added by default to every pod that does not already have such a toleration.

-h, --help

help for kubectl

--insecure-skip-tls-verify

If true, the server's certificate will not be checked for validity. This will make your
HTTPS connections insecure

--kubeconfig string

Path to the kubeconfig file to use for CLI requests.

--log-backtrace-at traceLocation   Default: :0

when logging hits line file:N, emit a stack trace

--log-dir string

If non-empty, write log files in this directory

--log-file string

If non-empty, use this log file

--log-file-max-size uint   Default: 1800

Defines the maximum size a log file can grow to. Unit is megabytes. If the value is 0,
the maximum file size is unlimited.

--log-flush-frequency duration   Default: 5s

Maximum number of seconds between log flushes

--logtostderr   Default: true

log to standard error instead of files

--match-server-version

Require server version to match client version

-n, --namespace string

If present, the namespace scope for this CLI request

--one-output

If true, only write logs to their native severity level (vs also writing to each lower severity level)

--password string

Password for basic authentication to the API server

--profile string   Default: "none"

Name of profile to capture. One of (none|cpu|heap|goroutine|threadcreate|block|mutex)

--profile-output string   Default: "profile.pprof"

Name of the file to write the profile to

--request-timeout string   Default: "0"

The length of time to wait before giving up on a single server request. Non-zero values should contain a corresponding time unit (e.g. 1s, 2m, 3h). A value of zero means don't timeout requests.

-s, --server string

The address and port of the Kubernetes API server

--skip-headers

If true, avoid header prefixes in the log messages

--skip-log-headers

If true, avoid headers when opening log files

--stderrthreshold severity   Default: 2

logs at or above this threshold go to stderr

--tls-server-name string

Server name to use for server certificate validation. If it is not provided, the hostname used to contact the server is used

---

--token string

Bearer token for authentication to the API server

--user string

The name of the kubeconfig user to use

--username string

Username for basic authentication to the API server

-v, --v Level

number for the log level verbosity

--version version[=true]

>   Print version information and quit

--vmodule moduleSpec

>   comma-separated list of pattern=N settings for file-filtered logging

--warnings-as-errors

>   Treat warnings received from the server as errors and exit with a non-zero exit code

Environment variables

KUBECONFIG

>   Path to the kubectl configuration ("kubeconfig") file. Default: "$HOME/.kube/config"

KUBECTL_COMMAND_HEADERS

>   When set to false, turns off extra HTTP headers detailing invoked kubectl command
>   (Kubernetes version v1.22 or later)

KUBECTL_DEBUG_CUSTOM_PROFILE

>   When set to true, custom flag will be enabled in kubectl debug. This flag is used to
>   customize the pre-defined profiles.

KUBECTL_EXPLAIN_OPENAPIV3

>   Toggles whether calls to `kubectl explain` use the new OpenAPIv3 data source
>   available. OpenAPIV3 is enabled by default since Kubernetes 1.24.

KUBECTL_ENABLE_CMD_SHADOW

>   When set to true, external plugins can be used as subcommands for builtin
>   commands if subcommand does not exist. In alpha stage, this feature can only be
>   used for create command(e.g. kubectl create networkpolicy).

KUBECTL_PORT_FORWARD_WEBSOCKETS

>   When set to true, the kubectl port-forward command will attempt to stream using
>   the websockets protocol. If the upgrade to websockets fails, the commands will
>   fallback to use the current SPDY protocol.

KUBECTL_REMOTE_COMMAND_WEBSOCKETS

>   When set to true, the kubectl exec, cp, and attach commands will attempt to stream
>   using the websockets protocol. If the upgrade to websockets fails, the commands will
>   fallback to use the current SPDY protocol.

See Also

- [kubectl annotate](#) - Update the annotations on a resource
- [kubectl api-resources](#) - Print the supported API resources on the
  server
- [kubectl api-versions](#) - Print the supported API versions on the
  server, in the form of "group/version"
- [kubectl apply](#) - Apply a configuration to a resource by filename or

stdin

- [kubectl attach](#) - Attach to a running container
- [kubectl auth](#) - Inspect authorization
- [kubectl autoscale](#) - Auto-scale a Deployment, ReplicaSet, or ReplicationController
- [kubectl certificate](#) - Modify certificate resources.
- [kubectl cluster-info](#) - Display cluster info
- [kubectl completion](#) - Output shell completion code for the specified shell (bash or zsh)
- [kubectl config](#) - Modify kubeconfig files
- [kubectl cordon](#) - Mark node as unschedulable
- [kubectl cp](#) - Copy files and directories to and from containers.
- [kubectl create](#) - Create a resource from a file or from stdin.
- [kubectl debug](#) - Create debugging sessions for troubleshooting workloads and nodes
- [kubectl delete](#) - Delete resources by filenames, stdin, resources and names, or by resources and label selector
- [kubectl describe](#) - Show details of a specific resource or group of resources
- [kubectl diff](#) - Diff live version against would-be applied version
- [kubectl drain](#) - Drain node in preparation for maintenance
- [kubectl edit](#) - Edit a resource on the server
- [kubectl events](#) - List events
- [kubectl exec](#) - Execute a command in a container
- [kubectl explain](#) - Documentation of resources
- [kubectl expose](#) - Take a replication controller, service, deployment or pod and expose it as a new Kubernetes Service
- [kubectl get](#) - Display one or many resources
- [kubectl kustomize](#) - Build a kustomization target from a directory or a remote url.
- [kubectl label](#) - Update the labels on a resource
- [kubectl logs](#) - Print the logs for a container in a pod
- [kubectl options](#) - Print the list of flags inherited by all commands
- [kubectl patch](#) - Update field(s) of a resource
- [kubectl plugin](#) - Provides utilities for interacting with plugins.
- [kubectl port-forward](#) - Forward one or more local ports to a pod
- [kubectl proxy](#) - Run a proxy to the Kubernetes API server
- [kubectl replace](#) - Replace a resource by filename or stdin
- [kubectl rollout](#) - Manage the rollout of a resource
- [kubectl run](#) - Run a particular image on the cluster
- [kubectl scale](#) - Set a new size for a Deployment, ReplicaSet or Replication Controller
- [kubectl set](#) - Set specific features on objects
- [kubectl taint](#) - Update the taints on one or more nodes
- [kubectl top](#) - Display Resource (CPU/Memory/Storage) usage.
- [kubectl uncordon](#) - Mark node as schedulable
- [kubectl version](#) - Print the client and server version information
- [kubectl wait](#) - Experimental: Wait for a specific condition on one or many resources.

11.6 - JSONPath Support

Kubectl supports JSONPath template.

JSONPath template is composed of JSONPath expressions enclosed by curly braces {}. Kubectl uses JSONPath expressions to filter on specific fields in the JSON object and format the output. In addition to the original JSONPath template syntax, the following functions and syntax are valid:

1. Use double quotes to quote text inside JSONPath expressions.
2. Use the `range`, `end` operators to iterate lists.
3. Use negative slice indices to step backwards through a list. Negative indices do not "wrap around" a list and are valid as long as `-index + listLength >= 0`.

> **Note:**
> - The `$` operator is optional since the expression always starts from the root object by default.
> - The result object is printed as its String() function.

Given the JSON input:

```
{
  "kind": "List",
  "items":[
    {
      "kind":"None",
      "metadata":{
        "name":"127.0.0.1",
        "labels":{
          "kubernetes.io/hostname":"127.0.0.1"
        }
      },
      "status":{
        "capacity":{"cpu":"4"},
        "addresses":[{"type": "LegacyHostIP", "address":"127.0.0.1"}]
      }
    },
    {
      "kind":"None",
      "metadata":{"name":"127.0.0.2"},
      "status":{
        "capacity":{"cpu":"8"},
        "addresses":[
          {"type": "LegacyHostIP", "address":"127.0.0.2"},
          {"type": "another", "address":"127.0.0.3"}
        ]
      }
    }
  ],
  "users":[
    {
      "name": "myself",
      "user": {}
    },
    {
      "name": "e2e",
      "user": {"username": "admin", "password": "secret"}
    }
  ]
}
```

Function	Description	Example
`text`	the plain text	`kind is {.kind}`
`@`	the current object	`{@}`
`.` or `[]`	child operator	`{.kind}` , `{['kind']}` or `{['name\.type']}`
`..`	recursive descent	`{..name}`
`*`	wildcard. Get all objects	`{.items[*].metadata.name}`
`[start:end:step]`	subscript operator	`{.users[0].name}`
`[,]`	union operator	`{.items[*]['metadata.name', 'status.capacity']}`
`?()`	filter	`{.users[?(@.name=="e2e")].user.password}`
`range` , `end`	iterate list	`{range .items[*]}[{.metadata.name}, {.status.capacity}] {end}`
`''`	quote interpreted string	`{range .items[*]}{.metadata.name}{'\t'} {end}`
`\`	escape termination character	`{.items[0].metadata.labels.kubernetes\.io /hostname}`

Examples using `kubectl` and JSONPath expressions:

```
kubectl get pods -o json
kubectl get pods -o=jsonpath='{@}'
kubectl get pods -o=jsonpath='{.items[0]}'
kubectl get pods -o=jsonpath='{.items[0].metadata.name}'
kubectl get pods -o=jsonpath="{.items[*]['metadata.name', 'status.cap
kubectl get pods -o=jsonpath='{range .items[*]}{.metadata.name}{"\t"}
kubectl get pods -o=jsonpath='{.items[0].metadata.labels.kubernetes\.
```

> **Note:**
> On Windows, you must *double* quote any JSONPath template that contains spaces (not single quote as shown above for bash). This in turn means that you must use a single quote or escaped double quote around any literals in the template. For example:

```
kubectl get pods -o=jsonpath="{range .items[*]}{.metadata.name}{'
kubectl get pods -o=jsonpath="{range .items[*]}{.metadata.name}{\
```

Note:

JSONPath regular expressions are not supported. If you want to
match using regular expressions, you can use a tool such as `jq` .

```
# kubectl does not support regular expressions for JSONpath outp
# The following command does not work
kubectl get pods -o jsonpath='{.items[?(@.metadata.name=~/^test$/
 
# The following command achieves the desired result
kubectl get pods -o json | jq -r '.items[] | select(.metadata.nam
```

11.7 - kubectl for Docker Users

You can use the Kubernetes command line tool `kubectl` to interact with the API Server. Using kubectl is straightforward if you are familiar with the Docker command line tool. However, there are a few differences between the Docker commands and the kubectl commands. The following sections show a Docker sub-command and describe the equivalent `kubectl` command.

docker run

To run an nginx Deployment and expose the Deployment, see [kubectl create deployment](#).

docker:

```
docker run -d --restart=always -e DOMAIN=cluster --name nginx-app -p
```

```
55c103fa129692154a7652490236fee9be47d70a8dd562281ae7d2f9a339a6db
```

```
docker ps
```

```
CONTAINER ID      IMAGE            COMMAND              CREA
55c103fa1296      nginx            "nginx -g 'daemon of…"   9 se
```

kubectl:

```
# start the pod running nginx
kubectl create deployment --image=nginx nginx-app
```

```
deployment.apps/nginx-app created
```

```
# add env to nginx-app
kubectl set env deployment/nginx-app  DOMAIN=cluster
```

```
deployment.apps/nginx-app env updated
```

> **Note:**
> `kubectl` commands print the type and name of the resource created or mutated, which can then be used in subsequent commands. You can expose a new Service after a Deployment is created.

```
# expose a port through with a service
kubectl expose deployment nginx-app --port=80 --name=nginx-http
```

```
service "nginx-http" exposed
```

By using kubectl, you can create a [Deployment](#) to ensure that N pods are running nginx, where N is the number of replicas stated in the spec and defaults to 1. You can also create a [service](#) with a selector that matches the pod labels. For more information, see [Use a Service to Access an Application in a Cluster](#).

By default images run in the background, similar to `docker run -d ...`. To run things in the foreground, use [`kubectl run`](#) to create pod:

```
kubectl run [-i] [--tty] --attach <name> --image=<image>
```

Unlike `docker run ...`, if you specify `--attach`, then you attach `stdin`, `stdout` and `stderr`. You cannot control which streams are attached (`docker -a ...`). To detach from the container, you can type the escape sequence Ctrl+P followed by Ctrl+Q.

docker ps

To list what is currently running, see [kubectl get](#).

docker:

```
docker ps -a
```

```
CONTAINER ID        IMAGE               COMMAND                  CREA
14636241935f        ubuntu:16.04        "echo test"              5 se
55c103fa1296        nginx               "nginx -g 'daemon of…"   Abou
```

kubectl:

```
kubectl get po
```

```
NAME                         READY     STATUS      RESTARTS   AGE
nginx-app-8df569cb7-4gd89    1/1       Running     0          3m
ubuntu                       0/1       Completed   0          20s
```

docker attach

To attach a process that is already running in a container, see [kubectl attach](#).

docker:

```
docker ps
```

```
CONTAINER ID        IMAGE               COMMAND                  CREA
55c103fa1296        nginx               "nginx -g 'daemon of…"   5 mi
```

```
docker attach 55c103fa1296
...
```

kubectl:

```
kubectl get pods
```

```
NAME                READY     STATUS      RESTARTS    AGE
nginx-app-5jyvm     1/1       Running     0           10m
```

```
kubectl attach -it nginx-app-5jyvm
...
```

To detach from the container, you can type the escape sequence Ctrl+P followed by Ctrl+Q.

docker exec

To execute a command in a container, see [kubectl exec](#).

docker:

```
docker ps
```

```
CONTAINER ID        IMAGE               COMMAND                  CREA
55c103fa1296        nginx               "nginx -g 'daemon of…"   6 mi
```

```
docker exec 55c103fa1296 cat /etc/hostname
```

```
55c103fa1296
```

kubectl:

```
kubectl get po
```

```
NAME                READY     STATUS      RESTARTS    AGE
nginx-app-5jyvm     1/1       Running     0           10m
```

```
kubectl exec nginx-app-5jyvm -- cat /etc/hostname
```

```
nginx-app-5jyvm
```

To use interactive commands.

docker:

```
docker exec -ti 55c103fa1296 /bin/sh
# exit
```

kubectl:

```
kubectl exec -ti nginx-app-5jyvm -- /bin/sh
# exit
```

For more information, see Get a Shell to a Running Container.

docker logs

To follow stdout/stderr of a process that is running, see kubectl logs.

docker:

```
docker logs -f a9e
```

```
192.168.9.1 - - [14/Jul/2015:01:04:02 +0000] "GET / HTTP/1.1" 200 612
192.168.9.1 - - [14/Jul/2015:01:04:03 +0000] "GET / HTTP/1.1" 200 612
```

kubectl:

```
kubectl logs -f nginx-app-zibvs
```

```
10.240.63.110 - - [14/Jul/2015:01:09:01 +0000] "GET / HTTP/1.1" 200 6
10.240.63.110 - - [14/Jul/2015:01:09:02 +0000] "GET / HTTP/1.1" 200 6
```

There is a slight difference between pods and containers; by default pods do not terminate if their processes exit. Instead the pods restart the process. This is similar to the docker run option `--restart=always` with one major difference. In docker, the output for each invocation of the process is concatenated, but for Kubernetes, each invocation is separate. To see the output from a previous run in Kubernetes, do this:

```
kubectl logs --previous nginx-app-zibvs
```

```
10.240.63.110 - - [14/Jul/2015:01:09:01 +0000] "GET / HTTP/1.1" 200 6
10.240.63.110 - - [14/Jul/2015:01:09:02 +0000] "GET / HTTP/1.1" 200 6
```

For more information, see [Logging Architecture](#).

docker stop and docker rm

To stop and delete a running process, see [kubectl delete](#).

docker:

```
docker ps
```

```
CONTAINER ID        IMAGE              COMMAND                CREATE
a9ec34d98787        nginx              "nginx -g 'daemon of"  22 hou
```

```
docker stop a9ec34d98787
```

```
a9ec34d98787
```

```
docker rm a9ec34d98787
```

```
a9ec34d98787
```

kubectl:

```
kubectl get deployment nginx-app
```

```
NAME        READY   UP-TO-DATE   AVAILABLE   AGE
nginx-app   1/1     1            1           2m
```

```
kubectl get po -l app=nginx-app
```

```
NAME                        READY   STATUS    RESTARTS   AGE
nginx-app-2883164633-aklf7  1/1     Running   0          2m
```

```
kubectl delete deployment nginx-app
```

```
deployment "nginx-app" deleted
```

```
kubectl get po -l app=nginx-app
# Return nothing
```

> **Note:**
> When you use kubectl, you don't delete the pod directly. You have to
> first delete the Deployment that owns the pod. If you delete the pod
> directly, the Deployment recreates the pod.

docker login

There is no direct analog of `docker login` in kubectl. If you are interested
in using Kubernetes with a private registry, see [Using a Private Registry](#).

docker version

To get the version of client and server, see [kubectl version](#).

docker:

```
docker version
```

```
Client version: 1.7.0
Client API version: 1.19
Go version (client): go1.4.2
Git commit (client): 0baf609
OS/Arch (client): linux/amd64
Server version: 1.7.0
Server API version: 1.19
Go version (server): go1.4.2
Git commit (server): 0baf609
OS/Arch (server): linux/amd64
```

kubectl:

```
kubectl version
```

```
Client Version: version.Info{Major:"1", Minor:"6", GitVersion:"v1.6.9
Server Version: version.Info{Major:"1", Minor:"6", GitVersion:"v1.6.9
```

docker info

To get miscellaneous information about the environment and
configuration, see [kubectl cluster-info](#).

docker:

```
docker info
```

```
Containers: 40
Images: 168
Storage Driver: aufs
 Root Dir: /usr/local/google/docker/aufs
 Backing Filesystem: extfs
 Dirs: 248
 Dirperm1 Supported: false
Execution Driver: native-0.2
Logging Driver: json-file
Kernel Version: 3.13.0-53-generic
Operating System: Ubuntu 14.04.2 LTS
CPUs: 12
Total Memory: 31.32 GiB
Name: k8s-is-fun.mtv.corp.google.com
ID: ADUV:GCYR:B3VJ:HMPO:LNPQ:KD5S:YKFQ:76VN:IANZ:7TFV:ZBF4:BYJO
WARNING: No swap limit support
```

kubectl:

```
kubectl cluster-info
```

```
Kubernetes master is running at https://203.0.113.141
KubeDNS is running at https://203.0.113.141/api/v1/namespaces/kube-sy
kubernetes-dashboard is running at https://203.0.113.141/api/v1/names
Grafana is running at https://203.0.113.141/api/v1/namespaces/kube-sy
Heapster is running at https://203.0.113.141/api/v1/namespaces/kube-s
InfluxDB is running at https://203.0.113.141/api/v1/namespaces/kube-s
```

11.8 - kubectl Usage Conventions

Recommended usage conventions for `kubectl`.

Using `kubectl` in Reusable Scripts

For a stable output in a script:

- Request one of the machine-oriented output forms, such as `-o name`, `-o json`, `-o yaml`, `-o go-template`, or `-o jsonpath`.
- Fully-qualify the version. For example, `jobs.v1.batch/myjob`. This will ensure that kubectl does not use its default version that can change over time.
- Don't rely on context, preferences, or other implicit states.

Subresources

- You can use the `--subresource` beta flag for kubectl commands like `get`, `patch`, `edit` and `replace` to fetch and update subresources for all resources that support them. Currently, only the `status` and `scale` subresources are supported.
  - For `kubectl edit`, the `scale` subresource is not supported. If you use `--subresource` with `kubectl edit` and specify `scale` as the subresource, the command will error out.
- The API contract against a subresource is identical to a full resource. While updating the `status` subresource to a new value, keep in mind that the subresource could be potentially reconciled by a controller to a different value.

Best Practices

kubectl run

For `kubectl run` to satisfy infrastructure as code:

- Tag the image with a version-specific tag and don't move that tag to a new version. For example, use `:v1234`, `v1.2.3`, `r03062016-1-4`, rather than `:latest` (For more information, see [Best Practices for Configuration](#)).
- Check in the script for an image that is heavily parameterized.
- Switch to configuration files checked into source control for features that are needed, but not expressible via `kubectl run` flags.

You can use the `--dry-run=client` flag to preview the object that would be sent to your cluster, without really submitting it.

kubectl apply

- You can use `kubectl apply` to create or update resources. For more information about using kubectl apply to update resources, see [Kubectl Book](#).

12 - Component tools

12.1 - Feature Gates

This page contains an overview of the various feature gates an administrator can specify on different Kubernetes components.

See [feature stages](#) for an explanation of the stages for a feature.

Overview

Feature gates are a set of key=value pairs that describe Kubernetes features. You can turn these features on or off using the `--feature-gates` command line flag on each Kubernetes component.

Each Kubernetes component lets you enable or disable a set of feature gates that are relevant to that component. Use `-h` flag to see a full set of feature gates for all components. To set feature gates for a component, such as kubelet, use the `--feature-gates` flag assigned to a list of feature pairs:

```
--feature-gates=...,GracefulNodeShutdown=true
```

The following tables are a summary of the feature gates that you can set on different Kubernetes components.

- The "Since" column contains the Kubernetes release when a feature is introduced or its release stage is changed.
- The "Until" column, if not empty, contains the last Kubernetes release in which you can still use a feature gate.
- If a feature is in the Alpha or Beta state, you can find the feature listed in the [Alpha/Beta feature gate table](#).
- If a feature is stable you can find all stages for that feature listed in the [Graduated/Deprecated feature gate table](#).
- The [Graduated/Deprecated feature gate table](#) also lists deprecated and withdrawn features.

> **Note:**
> For a reference to old feature gates that are removed, please refer to [feature gates removed](#).

Feature gates for Alpha or Beta features

Feature	Default	Stage	Since	U
AnonymousAuthConfigurableEndpoints	false	Alpha	1.31	–
AnyVolumeDataSource	false	Alpha	1.18	1.
AnyVolumeDataSource	true	Beta	1.24	–
APIResponseCompression	false	Alpha	1.7	1.
APIResponseCompression	true	Beta	1.16	–

Feature	Default	Stage	Since	Ur
`APIServerIdentity`	false	Alpha	1.20	1.
`APIServerIdentity`	true	Beta	1.26	–
`APIServerTracing`	false	Alpha	1.22	1.
`APIServerTracing`	true	Beta	1.27	–
`AuthorizeNodeWithSelectors`	false	Alpha	1.31	–
`AuthorizeWithSelectors`	false	Alpha	1.31	–
`CloudControllerManagerWebhook`	false	Alpha	1.27	–
`ClusterTrustBundle`	false	Alpha	1.27	–
`ClusterTrustBundleProjection`	false	Alpha	1.29	–
`ComponentSLIs`	false	Alpha	1.26	1.
`ComponentSLIs`	true	Beta	1.27	–
`ConsistentListFromCache`	false	Alpha	1.28	1.
`ConsistentListFromCache`	true	Beta	1.31	–
`ContainerCheckpoint`	false	Alpha	1.25	1.
`ContainerCheckpoint`	true	Beta	1.30	–
`ContextualLogging`	false	Alpha	1.24	–
`ContextualLogging`	true	Beta	1.30	–
`CoordinatedLeaderElection`	false	Alpha	1.31	–
`CPUManagerPolicyAlphaOptions`	false	Alpha	1.23	–
`CPUManagerPolicyBetaOptions`	true	Beta	1.23	–
`CPUManagerPolicyOptions`	false	Alpha	1.22	1.
`CPUManagerPolicyOptions`	true	Beta	1.23	–
`CRDValidationRatcheting`	false	Alpha	1.28	1.
`CRDValidationRatcheting`	true	Beta	1.30	–
`CronJobsScheduledAnnotation`	true	Beta	1.28	–
`CrossNamespaceVolumeDataSource`	false	Alpha	1.26	–
`CSIMigrationPortworx`	false	Alpha	1.23	1.
`CSIMigrationPortworx`	false	Beta	1.25	–
`CSIVolumeHealth`	false	Alpha	1.21	–

Feature	Default	Stage	Since	U
`CustomCPUCFSQuotaPeriod`	false	Alpha	1.12	–
`CustomResourceFieldSelectors`	false	Alpha	1.30	1.
`CustomResourceFieldSelectors`	true	Beta	1.31	–
`DisableCloudProviders`	false	Alpha	1.22	1.
`DisableCloudProviders`	true	Beta	1.29	–
`DisableKubeletCloudCredentialProviders`	false	Alpha	1.23	1.
`DisableKubeletCloudCredentialProviders`	true	Beta	1.29	–
`DisableNodeKubeProxyVersion`	false	Alpha	1.29	1.
`DisableNodeKubeProxyVersion`	true	Beta	1.31	–
`DRAControlPlaneController`	false	Alpha	1.26	–
`DynamicResourceAllocation`	false	Alpha	1.30	–
`EventedPLEG`	false	Alpha	1.25	–
`GracefulNodeShutdown`	false	Alpha	1.20	1.
`GracefulNodeShutdown`	true	Beta	1.21	–
`GracefulNodeShutdownBasedOnPodPriority`	false	Alpha	1.23	1.
`GracefulNodeShutdownBasedOnPodPriority`	true	Beta	1.24	–
`HonorPVReclaimPolicy`	false	Alpha	1.23	1.
`HonorPVReclaimPolicy`	true	Beta	1.31	–
`HPAScaleToZero`	false	Alpha	1.16	–
`ImageMaximumGCAge`	false	Alpha	1.29	1.
`ImageMaximumGCAge`	true	Beta	1.30	–
`ImageVolume`	false	Alpha	1.31	–
`InPlacePodVerticalScaling`	false	Alpha	1.27	–
`InTreePluginPortworxUnregister`	false	Alpha	1.23	–
`JobBackoffLimitPerIndex`	false	Alpha	1.28	1.
`JobBackoffLimitPerIndex`	true	Beta	1.29	–
`JobManagedBy`	false	Alpha	1.30	–
`JobPodReplacementPolicy`	false	Alpha	1.28	1.
`JobPodReplacementPolicy`	true	Beta	1.29	–

Feature	Default	Stage	Since	U
JobSuccessPolicy	false	Alpha	1.30	1.
JobSuccessPolicy	true	Beta	1.31	–
KubeletCgroupDriverFromCRI	false	Alpha	1.28	1.
KubeletCgroupDriverFromCRI	true	Beta	1.31	–
KubeletInUserNamespace	false	Alpha	1.22	–
KubeletPodResourcesDynamicResources	false	Alpha	1.27	–
KubeletPodResourcesGet	false	Alpha	1.27	–
KubeletSeparateDiskGC	false	Alpha	1.29	1.
KubeletSeparateDiskGC	true	Beta	1.31	–
KubeletTracing	false	Alpha	1.25	1.
KubeletTracing	true	Beta	1.27	–
LoadBalancerIPMode	false	Alpha	1.29	1.
LoadBalancerIPMode	true	Beta	1.30	–
LocalStorageCapacityIsolationFSQuotaMonitoring	false	Alpha	1.15	1.
LocalStorageCapacityIsolationFSQuotaMonitoring	false	Beta	1.31	–
LoggingAlphaOptions	false	Alpha	1.24	–
LoggingBetaOptions	true	Beta	1.24	–
MatchLabelKeysInPodAffinity	false	Alpha	1.29	1.
MatchLabelKeysInPodAffinity	true	Beta	1.31	–
MatchLabelKeysInPodTopologySpread	false	Alpha	1.25	1.
MatchLabelKeysInPodTopologySpread	true	Beta	1.27	–
MaxUnavailableStatefulSet	false	Alpha	1.24	–
MemoryManager	false	Alpha	1.21	1.
MemoryManager	true	Beta	1.22	–
MemoryQoS	false	Alpha	1.22	–
MultiCIDRServiceAllocator	false	Alpha	1.27	1.
MultiCIDRServiceAllocator	false	Beta	1.31	–
MutatingAdmissionPolicy	false	Alpha	1.30	–
NFTablesProxyMode	false	Alpha	1.29	1.

Feature	Default	Stage	Since	U
NFTablesProxyMode	true	Beta	1.31	–
NodeInclusionPolicyInPodTopologySpread	false	Alpha	1.25	1.
NodeInclusionPolicyInPodTopologySpread	true	Beta	1.26	–
NodeLogQuery	false	Alpha	1.27	1.
NodeLogQuery	false	Beta	1.30	–
NodeSwap	false	Alpha	1.22	1.
NodeSwap	false	Beta	1.28	1.
NodeSwap	true	Beta	1.30	–
OpenAPIEnums	false	Alpha	1.23	1.
OpenAPIEnums	true	Beta	1.24	–
PodAndContainerStatsFromCRI	false	Alpha	1.23	–
PodDeletionCost	false	Alpha	1.21	1.
PodDeletionCost	true	Beta	1.22	–
PodIndexLabel	true	Beta	1.28	–
PodLifecycleSleepAction	false	Alpha	1.29	1.
PodLifecycleSleepAction	true	Beta	1.30	–
PodReadyToStartContainersCondition	false	Alpha	1.28	1.
PodReadyToStartContainersCondition	true	Beta	1.29	–
PortForwardWebsockets	false	Alpha	1.30	1.
PortForwardWebsockets	true	Beta	1.31	–
ProcMountType	false	Alpha	1.12	–
QOSReserved	false	Alpha	1.11	–
RecoverVolumeExpansionFailure	false	Alpha	1.23	–
RecursiveReadOnlyMounts	false	Alpha	1.30	–
RelaxedEnvironmentVariableValidation	false	Alpha	1.30	–
ResilientWatchCacheInitialization	true	Beta	1.31	–
ResourceHealthStatus	false	Alpha	1.31	–
RetryGenerateName	false	Alpha	1.30	–
RotateKubeletServerCertificate	false	Alpha	1.7	1.

Feature	Default	Stage	Since	U
RotateKubeletServerCertificate	true	Beta	1.12	–
RuntimeClassInImageCriApi	false	Alpha	1.29	–
SchedulerQueueingHints	true	Beta	1.28	1.
SchedulerQueueingHints	false	Beta	1.29	–
SELinuxMount	false	Alpha	1.30	–
SELinuxMountReadWriteOncePod	false	Alpha	1.25	1.
SELinuxMountReadWriteOncePod	false	Beta	1.27	1.
SELinuxMountReadWriteOncePod	true	Beta	1.28	–
SeparateTaintEvictionController	true	Beta	1.29	–
ServiceAccountTokenJTI	false	Alpha	1.29	1.
ServiceAccountTokenJTI	true	Beta	1.30	–
ServiceAccountTokenNodeBinding	false	Alpha	1.29	1.
ServiceAccountTokenNodeBinding	true	Beta	1.31	–
ServiceAccountTokenNodeBindingValidation	false	Alpha	1.29	1.
ServiceAccountTokenNodeBindingValidation	true	Beta	1.30	–
ServiceAccountTokenPodNodeInfo	false	Alpha	1.29	1.
ServiceAccountTokenPodNodeInfo	true	Beta	1.30	–
ServiceTrafficDistribution	false	Alpha	1.30	1.
ServiceTrafficDistribution	true	Beta	1.31	–
SidecarContainers	false	Alpha	1.28	1.
SidecarContainers	true	Beta	1.29	–
SizeMemoryBackedVolumes	false	Alpha	1.20	1.
SizeMemoryBackedVolumes	true	Beta	1.22	–
StatefulSetAutoDeletePVC	false	Alpha	1.23	1.
StatefulSetAutoDeletePVC	true	Beta	1.27	–
StorageVersionAPI	false	Alpha	1.20	–
StorageVersionHash	false	Alpha	1.14	1.
StorageVersionHash	true	Beta	1.15	–
StorageVersionMigrator	false	Alpha	1.30	1.

Feature	Default	Stage	Since	U
StructuredAuthenticationConfiguration	false	Alpha	1.29	1.
StructuredAuthenticationConfiguration	true	Beta	1.30	–
StructuredAuthorizationConfiguration	false	Alpha	1.29	1.
StructuredAuthorizationConfiguration	true	Beta	1.30	–
SupplementalGroupsPolicy	false	Alpha	1.31	–
TopologyAwareHints	false	Alpha	1.21	1.
TopologyAwareHints	false	Beta	1.23	1.
TopologyAwareHints	true	Beta	1.24	–
TopologyManagerPolicyAlphaOptions	false	Alpha	1.26	–
TopologyManagerPolicyBetaOptions	false	Beta	1.26	1.
TopologyManagerPolicyBetaOptions	true	Beta	1.28	–
TopologyManagerPolicyOptions	false	Alpha	1.26	1.
TopologyManagerPolicyOptions	true	Beta	1.28	–
TranslateStreamCloseWebsocketRequests	true	Beta	1.30	–
UnauthenticatedHTTP2DOSMitigation	false	Beta	1.28	1.
UnauthenticatedHTTP2DOSMitigation	true	Beta	1.29	–
UnknownVersionInteroperabilityProxy	false	Alpha	1.28	–
UserNamespacesPodSecurityStandards	false	Alpha	1.29	–
UserNamespacesSupport	false	Alpha	1.28	1.
UserNamespacesSupport	false	Beta	1.30	–
VolumeAttributesClass	false	Alpha	1.29	1.
VolumeAttributesClass	false	Beta	1.31	–
VolumeCapacityPriority	false	Alpha	1.21	–
WatchCacheInitializationPostStartHook	false	Beta	1.31	–
WatchFromStorageWithoutResourceVersion	false	Beta	1.30	–
WatchList	false	Alpha	1.27	–
WindowsHostNetwork	true	Alpha	1.26	–
WinDSR	false	Alpha	1.14	–
WinOverlay	false	Alpha	1.14	1.

Feature	Default	Stage	Since	U
`WinOverlay`	true	Beta	1.20	–

Feature gates for graduated or deprecated features

Feature	Default	Stage	Since	U
`AdmissionWebhookMatchConditions`	false	Alpha	1.27	1.:
`AdmissionWebhookMatchConditions`	true	Beta	1.28	1.:
`AdmissionWebhookMatchConditions`	true	GA	1.30	–
`AggregatedDiscoveryEndpoint`	false	Alpha	1.26	1.:
`AggregatedDiscoveryEndpoint`	true	Beta	1.27	1.:
`AggregatedDiscoveryEndpoint`	true	GA	1.30	–
`AllowServiceLBStatusOnNonLB`	false	Deprecated	1.29	–
`APIListChunking`	false	Alpha	1.8	1.:
`APIListChunking`	true	Beta	1.9	1.:
`APIListChunking`	true	GA	1.29	–
`APIPriorityAndFairness`	false	Alpha	1.18	1.
`APIPriorityAndFairness`	true	Beta	1.20	1.:
`APIPriorityAndFairness`	true	GA	1.29	–
`AppArmor`	true	Beta	1.4	1.:
`AppArmor`	true	GA	1.31	–
`CloudDualStackNodeIPs`	false	Alpha	1.27	1.:
`CloudDualStackNodeIPs`	true	Beta	1.29	1.:
`CloudDualStackNodeIPs`	true	GA	1.30	–
`CPUManager`	false	Alpha	1.8	1.!
`CPUManager`	true	Beta	1.10	1.:
`CPUManager`	true	GA	1.26	–
`CSIMigrationRBD`	false	Alpha	1.23	1.:
`CSIMigrationRBD`	false	Deprecated	1.28	–
`DefaultHostNetworkHostPortsInPodTemplates`	false	Deprecated	1.28	–
`DevicePluginCDIDevices`	false	Alpha	1.28	1.:

Feature	Default	Stage	Since	Un
DevicePluginCDIDevices	true	Beta	1.29	1.
DevicePluginCDIDevices	true	GA	1.31	–
EfficientWatchResumption	false	Alpha	1.20	1.
EfficientWatchResumption	true	Beta	1.21	1.
EfficientWatchResumption	true	GA	1.24	–
ElasticIndexedJob	true	Beta	1.27	1.
ElasticIndexedJob	true	GA	1.31	–
ExecProbeTimeout	true	GA	1.20	–
HPAContainerMetrics	false	Alpha	1.20	1.
HPAContainerMetrics	true	Beta	1.27	1.
HPAContainerMetrics	true	GA	1.30	–
InTreePluginRBDUnregister	false	Alpha	1.23	1.
InTreePluginRBDUnregister	false	Deprecated	1.28	–
JobPodFailurePolicy	false	Alpha	1.25	1.
JobPodFailurePolicy	true	Beta	1.26	1.
JobPodFailurePolicy	true	GA	1.31	–
JobReadyPods	false	Alpha	1.23	1.
JobReadyPods	true	Beta	1.24	1.
JobReadyPods	true	GA	1.29	–
KMSv1	true	Deprecated	1.28	1.
KMSv1	false	Deprecated	1.29	–
KMSv2	false	Alpha	1.25	1.
KMSv2	true	Beta	1.27	1.
KMSv2	true	GA	1.29	–
KMSv2KDF	false	Beta	1.28	1.
KMSv2KDF	true	GA	1.29	–
KubeProxyDrainingTerminatingNodes	false	Alpha	1.28	1.
KubeProxyDrainingTerminatingNodes	true	Beta	1.30	1.
KubeProxyDrainingTerminatingNodes	true	GA	1.31	–

Feature	Default	Stage	Since	Ur
LegacyServiceAccountTokenCleanUp	false	Alpha	1.28	1.:
LegacyServiceAccountTokenCleanUp	true	Beta	1.29	1.:
LegacyServiceAccountTokenCleanUp	true	GA	1.30	–
LogarithmicScaleDown	false	Alpha	1.21	1.:
LogarithmicScaleDown	true	Beta	1.22	1.:
LogarithmicScaleDown	true	GA	1.31	–
MinDomainsInPodTopologySpread	false	Alpha	1.24	1.:
MinDomainsInPodTopologySpread	false	Beta	1.25	1.:
MinDomainsInPodTopologySpread	true	Beta	1.27	1.:
MinDomainsInPodTopologySpread	true	GA	1.30	–
NewVolumeManagerReconstruction	false	Beta	1.27	1.:
NewVolumeManagerReconstruction	true	Beta	1.28	1.:
NewVolumeManagerReconstruction	true	GA	1.30	–
NodeOutOfServiceVolumeDetach	false	Alpha	1.24	1.:
NodeOutOfServiceVolumeDetach	true	Beta	1.26	1.:
NodeOutOfServiceVolumeDetach	true	GA	1.28	–
PDBUnhealthyPodEvictionPolicy	false	Alpha	1.26	1.:
PDBUnhealthyPodEvictionPolicy	true	Beta	1.27	1.:
PDBUnhealthyPodEvictionPolicy	true	GA	1.31	–
PersistentVolumeLastPhaseTransitionTime	false	Alpha	1.28	1.:
PersistentVolumeLastPhaseTransitionTime	true	Beta	1.29	1.:
PersistentVolumeLastPhaseTransitionTime	true	GA	1.31	–
PodDisruptionConditions	false	Alpha	1.25	1.:
PodDisruptionConditions	true	Beta	1.26	1.:
PodDisruptionConditions	true	GA	1.31	–
PodHostIPs	false	Alpha	1.28	1.:
PodHostIPs	true	Beta	1.29	1.:
PodHostIPs	true	GA	1.30	–
PodSchedulingReadiness	false	Alpha	1.26	1.:

Feature	Default	Stage	Since	Ur
PodSchedulingReadiness	true	Beta	1.27	1.
PodSchedulingReadiness	true	GA	1.30	–
RemainingItemCount	false	Alpha	1.15	1.
RemainingItemCount	true	Beta	1.16	1.
RemainingItemCount	true	GA	1.29	–
ServerSideApply	false	Alpha	1.14	1.
ServerSideApply	true	Beta	1.16	1.
ServerSideApply	true	GA	1.22	–
ServerSideFieldValidation	false	Alpha	1.23	1.
ServerSideFieldValidation	true	Beta	1.25	1.
ServerSideFieldValidation	true	GA	1.27	–
SkipReadOnlyValidationGCE	false	Alpha	1.28	1.
SkipReadOnlyValidationGCE	true	Deprecated	1.29	–
StableLoadBalancerNodeSet	true	Beta	1.27	1.
StableLoadBalancerNodeSet	true	GA	1.30	–
StatefulSetStartOrdinal	false	Alpha	1.26	1.
StatefulSetStartOrdinal	true	Beta	1.27	1.
StatefulSetStartOrdinal	true	GA	1.31	–
ValidatingAdmissionPolicy	false	Alpha	1.26	1.
ValidatingAdmissionPolicy	false	Beta	1.28	1.
ValidatingAdmissionPolicy	true	GA	1.30	–
WatchBookmark	false	Alpha	1.15	1.
WatchBookmark	true	Beta	1.16	1.
WatchBookmark	true	GA	1.17	–
ZeroLimitedNominalConcurrencyShares	false	Beta	1.29	1.
ZeroLimitedNominalConcurrencyShares	true	GA	1.30	–

Using a feature

Feature stages

A feature can be in *Alpha*, *Beta* or *GA* stage. An *Alpha* feature means:

- Disabled by default.
- Might be buggy. Enabling the feature may expose bugs.
- Support for feature may be dropped at any time without notice.
- The API may change in incompatible ways in a later software release without notice.
- Recommended for use only in short-lived testing clusters, due to increased risk of bugs and lack of long-term support.

A *Beta* feature means:

- Usually enabled by default. Beta API groups are [disabled by default](#).
- The feature is well tested. Enabling the feature is considered safe.
- Support for the overall feature will not be dropped, though details may change.
- The schema and/or semantics of objects may change in incompatible ways in a subsequent beta or stable release. When this happens, we will provide instructions for migrating to the next version. This may require deleting, editing, and re-creating API objects. The editing process may require some thought. This may require downtime for applications that rely on the feature.
- Recommended for only non-business-critical uses because of potential for incompatible changes in subsequent releases. If you have multiple clusters that can be upgraded independently, you may be able to relax this restriction.

> **Note:**
> Please do try *Beta* features and give feedback on them! After they exit beta, it may not be practical for us to make more changes.

A *General Availability* (GA) feature is also referred to as a *stable* feature. It means:

- The feature is always enabled; you cannot disable it.
- The corresponding feature gate is no longer needed.
- Stable versions of features will appear in released software for many subsequent versions.

List of feature gates

Each feature gate is designed for enabling/disabling a specific feature.

- `AdmissionWebhookMatchConditions` : Enable [match conditions](#) on mutating & validating admission webhooks.

- `AggregatedDiscoveryEndpoint` : Enable a single HTTP endpoint `/discovery/<version>` which supports native HTTP caching with ETags containing all APIResources known to the API server.

- `AllowServiceLBStatusOnNonLB` : Enables `.status.ingress.loadBalancer` to be set on Services of types other than `LoadBalancer` .

- `AnonymousAuthConfigurableEndpoints` : Enable [configurable endpoints for anonymous auth](#) for the API server.

- `AnyVolumeDataSource` : Enable use of any custom resource as the `DataSource` of a PVC.

- `APIListChunking` : Enable the API clients to retrieve (`LIST` or `GET`)

resources from API server in chunks.

- `APIPriorityAndFairness` : Enable managing request concurrency with prioritization and fairness at each server. (Renamed from `RequestManagement`)

- `APIResponseCompression` : Compress the API responses for `LIST` or `GET` requests.

- `APIServerIdentity` : Assign each API server an ID in a cluster, using a [Lease](#).

- `APIServerTracing` : Add support for distributed tracing in the API server. See [Traces for Kubernetes System Components](#) for more details.

- `AppArmor` : Enable use of AppArmor mandatory access control for Pods running on Linux nodes. See [AppArmor Tutorial](#) for more details.

- `AuthorizeNodeWithSelectors` : Make the [Node authorizer](#) use fine-grained selector authorization. Requires `AuthorizeWithSelectors` to be enabled.

- `AuthorizeWithSelectors` : Allows authorization to use field and label selectors. Enables `fieldSelector` and `labelSelector` fields in the [SubjectAccessReview API](#), passes field and label selector information to [authorization webhooks](#), enables `fieldSelector` and `labelSelector` functions in the [authorizer CEL library](#), and enables checking `fieldSelector` and `labelSelector` fields in [authorization webhook](#) `matchConditions` .

- `CloudControllerManagerWebhook` : Enable webhooks in cloud controller manager.

- `CloudDualStackNodeIPs` : Enables dual-stack `kubelet --node-ip` with external cloud providers. See [Configure IPv4/IPv6 dual-stack](#) for more details.

- `ClusterTrustBundle` : Enable ClusterTrustBundle objects and kubelet integration.

- `ClusterTrustBundleProjection` : [`clusterTrustBundle` projected volume sources](#).

- `ComponentSLIs` : Enable the `/metrics/slis` endpoint on Kubernetes components like kubelet, kube-scheduler, kube-proxy, kube-controller-manager, cloud-controller-manager allowing you to scrape health check metrics.

- `ConsistentListFromCache` :
  Enhance Kubernetes API server performance by serving consistent **list** requests directly from its watch cache, improving scalability and response times. To consistent list from cache Kubernetes requires a newer etcd version (v3.4.31+ or v3.5.13+), that includes fixes to watch progress request feature. If older etcd version is provided Kubernetes will automatically detect it and fallback to serving consistent reads from etcd. Progress notifications ensure watch cache is consistent with etcd while reducing the need for resource-intensive quorum reads from etcd.

  See the Kubernetes documentation on [Semantics for **get** and **list**](#) for more details.

- `ContainerCheckpoint` : Enables the kubelet `checkpoint` API. See [Kubelet Checkpoint API](#) for more details.

- `ContextualLogging` : Enables extra details in log output of Kubernetes components that support contextual logging.

- `CoordinatedLeaderElection` : Enables the behaviors supporting the LeaseCandidate API, and also enables coordinated leader election for the Kubernetes control plane, deterministically.

- `CPUManager` : Enable container level CPU affinity support, see [CPU Management Policies](#).

- `CPUManagerPolicyAlphaOptions` : This allows fine-tuning of CPUManager policies, experimental, Alpha-quality options This feature gate guards *a group* of CPUManager options whose quality level is alpha. This feature gate will never graduate to beta or stable.

- `CPUManagerPolicyBetaOptions` : This allows fine-tuning of CPUManager policies, experimental, Beta-quality options This feature gate guards *a group* of CPUManager options whose quality level is beta. This feature gate will never graduate to stable.

- `CPUManagerPolicyOptions` : Allow fine-tuning of CPUManager policies.

- `CRDValidationRatcheting` : Enable updates to custom resources to contain violations of their OpenAPI schema if the offending portions of the resource update did not change. See [Validation Ratcheting](#) for more details.

- `CronJobsScheduledAnnotation` : Set the scheduled job time as an annotation on Jobs that were created on behalf of a CronJob.

- `CrossNamespaceVolumeDataSource` : Enable the usage of cross namespace volume data source to allow you to specify a source namespace in the `dataSourceRef` field of a PersistentVolumeClaim.

- `CSIMigrationPortworx` : Enables shims and translation logic to route volume operations from the Portworx in-tree plugin to Portworx CSI plugin. Requires Portworx CSI driver to be installed and configured in the cluster.

- `CSIMigrationRBD` : Enables shims and translation logic to route volume operations from the RBD in-tree plugin to Ceph RBD CSI plugin. Requires CSIMigration and csiMigrationRBD feature flags enabled and Ceph CSI plugin installed and configured in the cluster. This flag has been deprecated in favor of the `InTreePluginRBDUnregister` feature flag which prevents the registration of in-tree RBD plugin.

- `CSIVolumeHealth` : Enable support for CSI volume health monitoring on node.

- `CustomCPUCFSQuotaPeriod` : Enable nodes to change `cpuCFSQuotaPeriod` in [kubelet config](#).

- `CustomResourceFieldSelectors` : Enable `selectableFields` in the CustomResourceDefinition API to allow filtering of custom resource **list**, **watch** and **deletecollection** requests.

- `DefaultHostNetworkHostPortsInPodTemplates` : This feature gate controls the point at which a default value for `.spec.containers[*].ports[*].hostPort` is assigned, for Pods using `hostNetwork: true`. The default since Kubernetes v1.28 is to only set a default value in Pods.

  Enabling this means a default will be assigned even to the `.spec` of an embedded [PodTemplate](#) (for example, in a Deployment), which is the way that older releases of Kubernetes worked. You should migrate your code so that it does not rely on the legacy behavior.

- `DevicePluginCDIDevices` : Enable support to CDI device IDs in the [Device Plugin](#) API.

- `DisableCloudProviders` : Disables any functionality in `kube-apiserver` , `kube-controller-manager` and `kubelet` related to the `--cloud-provider` component flag.

- `DisableKubeletCloudCredentialProviders` : Disable the in-tree functionality in kubelet to authenticate to a cloud provider container registry for image pull credentials.

- `DisableNodeKubeProxyVersion` : Disable setting the `kubeProxyVersion` field of the Node.

- `DRAControlPlaneController` : Enables support for resources with custom parameters and a lifecycle that is independent of a Pod. Allocation of resources is handled by a resource driver's control plane controller.

- `DynamicResourceAllocation` : Enables support for resources with custom parameters and a lifecycle that is independent of a Pod. Allocation of resources is handled by the Kubernetes scheduler based on "structured parameters".

- `EfficientWatchResumption` : Allows for storage-originated bookmark (progress notify) events to be delivered to the users. This is only applied to watch operations.

- `ElasticIndexedJob` : Enables Indexed Jobs to be scaled up or down by mutating both `spec.completions` and `spec.parallelism` together such that `spec.completions == spec.parallelism` . See docs on [elastic Indexed Jobs](#) for more details.

- `EventedPLEG` : Enable support for the kubelet to receive container life cycle events from the container runtime via an extension to CRI. (PLEG is an abbreviation for "Pod lifecycle event generator"). For this feature to be useful, you also need to enable support for container lifecycle events in each container runtime running in your cluster. If the container runtime does not announce support for container lifecycle events then the kubelet automatically switches to the legacy generic PLEG mechanism, even if you have this feature gate enabled.

- `ExecProbeTimeout` : Ensure kubelet respects exec probe timeouts. This feature gate exists in case any of your existing workloads depend on a now-corrected fault where Kubernetes ignored exec probe timeouts. See [readiness probes](#).

- `GracefulNodeShutdown` : Enables support for graceful shutdown in kubelet. During a system shutdown, kubelet will attempt to detect the shutdown event and gracefully terminate pods running on the node. See [Graceful Node Shutdown](#) for more details.

- `GracefulNodeShutdownBasedOnPodPriority` : Enables the kubelet to check Pod priorities when shutting down a node gracefully.

- `HonorPVReclaimPolicy` : Honor persistent volume reclaim policy when it is `Delete` irrespective of PV-PVC deletion ordering. For more details, check the [PersistentVolume deletion protection finalizer](#) documentation.

- `HPAContainerMetrics` : Allow HorizontalPodAutoscalers to scale based on metrics from individual containers within target pods.

- `HPAScaleToZero` : Enables setting `minReplicas` to 0 for `HorizontalPodAutoscaler` resources when using custom or external

metrics.

- `ImageMaximumGCAge` : Enables the kubelet configuration field `imageMaximumGCAge` , allowing an administrator to specify the age after which an image will be garbage collected.

- `ImageVolume` : Allow using the `image` volume source in a Pod. This volume source lets you mount a container image as a read-only volume.

- `InPlacePodVerticalScaling` : Enables in-place Pod vertical scaling.

- `InTreePluginPortworxUnregister` : Stops registering the Portworx in-tree plugin in kubelet and volume controllers.

- `InTreePluginRBDUnregister` : Stops registering the RBD in-tree plugin in kubelet and volume controllers.

- `JobBackoffLimitPerIndex` : Allows specifying the maximal number of pod retries per index in Indexed jobs.

- `JobManagedBy` : Allows to delegate reconciliation of a Job object to an external controller.

- `JobPodFailurePolicy` : Allow users to specify handling of pod failures based on container exit codes and pod conditions.

- `JobPodReplacementPolicy` : Allows you to specify pod replacement for terminating pods in a [Job](#)

- `JobReadyPods` : Enables tracking the number of Pods that have a `Ready` [condition](#). The count of `Ready` pods is recorded in the [status](#) of a [Job](#) status.

- `JobSuccessPolicy` : Allow users to specify when a Job can be declared as succeeded based on the set of succeeded pods.

- `KMSv1` : Enables KMS v1 API for encryption at rest. See [Using a KMS Provider for data encryption](#) for more details.

- `KMSv2` : Enables KMS v2 API for encryption at rest. See [Using a KMS Provider for data encryption](#) for more details.

- `KMSv2KDF` : Enables KMS v2 to generate single use data encryption keys. See [Using a KMS Provider for data encryption](#) for more details. If the `KMSv2` feature gate is not enabled in your cluster, the value of the `KMSv2KDF` feature gate has no effect.

- `KubeletCgroupDriverFromCRI` : Enable detection of the kubelet cgroup driver configuration option from the CRI. You can use this feature gate on nodes with a kubelet that supports the feature gate and where there is a CRI container runtime that supports the `RuntimeConfig` CRI call. If both CRI and kubelet support this feature, the kubelet ignores the `cgroupDriver` configuration setting (or deprecated `--cgroup-driver` command line argument). If you enable this feature gate and the container runtime doesn't support it, the kubelet falls back to using the driver configured using the `cgroupDriver` configuration setting. See [Configuring a cgroup driver](#) for more details.

- `KubeletInUserNamespace` : Enables support for running kubelet in a user namespace. See [Running Kubernetes Node Components as a Non-root User](#).

- `KubeletPodResourcesDynamicResources` : Extend the kubelet's pod resources gRPC endpoint to to include resources allocated in `ResourceClaims` via `DynamicResourceAllocation` API. See [resource](#)

allocation reporting for more details. with information about the allocatable resources, enabling clients to properly track the free compute resources on a node.

- `KubeletPodResourcesGet` : Enable the `Get` gRPC endpoint on kubelet's for Pod resources. This API augments the resource allocation reporting.

- `KubeletSeparateDiskGC` : The split image filesystem feature enables kubelet to perform garbage collection of images (read-only layers) and/or containers (writeable layers) deployed on separate filesystems.

- `KubeletTracing` : Add support for distributed tracing in the kubelet. When enabled, kubelet CRI interface and authenticated http servers are instrumented to generate OpenTelemetry trace spans. See Traces for Kubernetes System Components for more details.

- `KubeProxyDrainingTerminatingNodes` : Implement connection draining for terminating nodes for `externalTrafficPolicy: Cluster` services.

- `LegacyServiceAccountTokenCleanUp` : Enable cleaning up Secret-based service account tokens when they are not used in a specified time (default to be one year).

- `LoadBalancerIPMode` : Allows setting `ipMode` for Services where `type` is set to `LoadBalancer` . See Specifying IPMode of load balancer status for more information.

- `LocalStorageCapacityIsolationFSQuotaMonitoring` : When `LocalStorageCapacityIsolation` is enabled for local ephemeral storage, the backing filesystem for emptyDir volumes supports project quotas, and `UserNamespacesSupport` is enabled, project quotas are used to monitor `emptyDir` volume storage consumption rather than using filesystem walk, ensuring better performance and accuracy.

- `LogarithmicScaleDown` : Enable semi-random selection of pods to evict on controller scaledown based on logarithmic bucketing of pod timestamps.

- `LoggingAlphaOptions` : Allow fine-tuning of experimental, alpha-quality logging options.

- `LoggingBetaOptions` : Allow fine-tuning of experimental, beta-quality logging options.

- `MatchLabelKeysInPodAffinity` : Enable the `matchLabelKeys` and `mismatchLabelKeys` fields for pod (anti)affinity.

- `MatchLabelKeysInPodTopologySpread` : Enable the `matchLabelKeys` field for Pod topology spread constraints.

- `MaxUnavailableStatefulSet` : Enables setting the `maxUnavailable` field for the rolling update strategy of a StatefulSet. The field specifies the maximum number of Pods that can be unavailable during the update.

- `MemoryManager` : Allows setting memory affinity for a container based on NUMA topology.

- `MemoryQoS` : Enable memory protection and usage throttle on pod / container using cgroup v2 memory controller.

- `MinDomainsInPodTopologySpread` : Enable `minDomains` in Pod topology spread constraints.

- `MultiCIDRServiceAllocator` : Track IP address allocations for Service cluster IPs using IPAddress objects.

- `MutatingAdmissionPolicy` : In Kubernetes 1.31, this feature gate has no effect. A future release of Kubernetes may use this feature gate to enable the MutatingAdmissionPolicy in admission chain.

- `NewVolumeManagerReconstruction` : Enables improved discovery of mounted volumes during kubelet startup. Since the associated code had been significantly refactored, Kubernetes versions 1.25 to 1.29 allowed you to opt-out in case the kubelet got stuck at the startup, or did not unmount volumes from terminated Pods.

  This refactoring was behind the `SELinuxMountReadWriteOncePod` feature gate in Kubernetes releases 1.25 and 1.26.

- `NFTablesProxyMode` : Allow running kube-proxy in [nftables mode](#).

- `NodeInclusionPolicyInPodTopologySpread` : Enable using `nodeAffinityPolicy` and `nodeTaintsPolicy` in [Pod topology spread constraints](#) when calculating pod topology spread skew.

- `NodeLogQuery` : Enables querying logs of node services using the `/logs` endpoint.

- `NodeOutOfServiceVolumeDetach` : When a Node is marked out-of-service using the `node.kubernetes.io/out-of-service` taint, Pods on the node will be forcefully deleted if they can not tolerate this taint, and the volume detach operations for Pods terminating on the node will happen immediately. The deleted Pods can recover quickly on different nodes.

- `NodeSwap` : Enable the kubelet to allocate swap memory for Kubernetes workloads on a node. Must be used with `KubeletConfiguration.failSwapOn` set to false. For more details, please see [swap memory](#)

- `OpenAPIEnums` : Enables populating "enum" fields of OpenAPI schemas in the spec returned from the API server.

- `PDBUnhealthyPodEvictionPolicy` : Enables the `unhealthyPodEvictionPolicy` field of a `PodDisruptionBudget` . This specifies when unhealthy pods should be considered for eviction. Please see [Unhealthy Pod Eviction Policy](#) for more details.

- `PersistentVolumeLastPhaseTransitionTime` : Adds a new field to PersistentVolume which holds a timestamp of when the volume last transitioned its phase.

- `PodAndContainerStatsFromCRI` : Configure the kubelet to gather container and pod stats from the CRI container runtime rather than gathering them from cAdvisor. As of 1.26, this also includes gathering metrics from CRI and emitting them over `/metrics/cadvisor` (rather than having cAdvisor emit them directly).

- `PodDeletionCost` : Enable the [Pod Deletion Cost](#) feature which allows users to influence ReplicaSet downscaling order.

- `PodDisruptionConditions` : Enables support for appending a dedicated pod condition indicating that the pod is being deleted due to a disruption.

- `PodHostIPs` : Enable the `status.hostIPs` field for pods and the downward API. The field lets you expose host IP addresses to workloads.

- `PodIndexLabel` : Enables the Job controller and StatefulSet controller to add the pod index as a label when creating new pods. See [Job completion mode docs](#) and [StatefulSet pod index label docs](#) for more details.

- `PodLifecycleSleepAction` : Enables the `sleep` action in Container lifecycle hooks.

- `PodReadyToStartContainersCondition` : Enable the kubelet to mark the [PodReadyToStartContainers](#) condition on pods.

  This feature gate was previously known as `PodHasNetworkCondition` , and the associated condition was named `PodHasNetwork` .

- `PodSchedulingReadiness` : Enable setting `schedulingGates` field to control a Pod's [scheduling readiness](#).

- `PortForwardWebsockets` : Allow WebSocket streaming of the portforward sub-protocol (`port-forward`) from clients requesting version v2 (`v2.portforward.k8s.io`) of the sub-protocol.

- `ProcMountType` : Enables control over the type proc mounts for containers by setting the `procMount` field of a SecurityContext.

- `QOSReserved` : Allows resource reservations at the QoS level preventing pods at lower QoS levels from bursting into resources requested at higher QoS levels (memory only for now).

- `RecoverVolumeExpansionFailure` : Enables users to edit their PVCs to smaller sizes so as they can recover from previously issued volume expansion failures. See [Recovering from Failure when Expanding Volumes](#) for more details.

- `RecursiveReadOnlyMounts` : Enables support for recursive read-only mounts. For more details, see [read-only mounts](#).

- `RelaxedEnvironmentVariableValidation` : Allow almost all printable ASCII characters in environment variables.

- `RemainingItemCount` : Allow the API servers to show a count of remaining items in the response to a [chunking list request](#).

- `ResilientWatchCacheInitialization` : Enables resilient watchcache initialization to avoid controlplane overload.

- `ResourceHealthStatus` : Enable the `allocatedResourcesStatus` field within the `.status` for a Pod. The field reports additional details for each container in the Pod, with the health information for each device assigned to the Pod. See [Device plugin and unhealthy devices](#) for more details.

- `RetryGenerateName` : Enables retrying of object creation when the API server is expected to generate a [name](#). When this feature is enabled, requests using `generateName` are retried automatically in case the control plane detects a name conflict with an existing object, up to a limit of 8 total attempts.

- `RotateKubeletServerCertificate` : Enable the rotation of the server TLS certificate on the kubelet. See [kubelet configuration](#) for more details.

- `RuntimeClassInImageCriApi` : Enables images to be pulled based on the [runtime class](#) of the pods that reference them.

- `SchedulerQueueingHints` : Enables [the scheduler's *queueing hints* enhancement](#), which benefits to reduce the useless requeueing.

The scheduler retries scheduling pods if something changes in the cluster that could make the pod scheduled. Queueing hints are internal signals that allow the scheduler to filter the changes in the cluster that are relevant to the unscheduled pod, based on previous scheduling attempts.

- `SELinuxMount` :
  Speeds up container startup by allowing kubelet to mount volumes for a Pod directly with the correct SELinux label instead of changing each file on the volumes recursively. It widens the performance improvements behind the `SELinuxMountReadWriteOncePod` feature gate by extending the implementation to all volumes.

  Enabling the `SELinuxMount` feature gate requires the feature gate `SELinuxMountReadWriteOncePod` to be enabled.

- `SELinuxMountReadWriteOncePod` : Speeds up container startup by allowing kubelet to mount volumes for a Pod directly with the correct SELinux label instead of changing each file on the volumes recursively. The initial implementation focused on ReadWriteOncePod volumes.

- `SeparateTaintEvictionController` : Enables running `TaintEvictionController` , that performs [Taint-based Evictions](#), in a controller separated from `NodeLifecycleController` . When this feature is enabled, users can optionally disable Taint-based Eviction setting the `--controllers=-taint-eviction-controller` flag on the `kube-controller-manager` .

- `ServerSideApply` : Enables the [Sever Side Apply (SSA)](#) feature on the API Server.

- `ServerSideFieldValidation` : Enables server-side field validation. This means the validation of resource schema is performed at the API server side rather than the client side (for example, the `kubectl create` or `kubectl apply` command line).

- `ServiceAccountTokenJTI` : Controls whether JTIs (UUIDs) are embedded into generated service account tokens, and whether these JTIs are recorded into the Kubernetes audit log for future requests made by these tokens.

- `ServiceAccountTokenNodeBinding` : Controls whether the API server allows binding service account tokens to Node objects.

- `ServiceAccountTokenNodeBindingValidation` : Controls whether the apiserver will validate a Node reference in service account tokens.

- `ServiceAccountTokenPodNodeInfo` : Controls whether the apiserver embeds the node name and uid for the associated node when issuing service account tokens bound to Pod objects.

- `ServiceTrafficDistribution` : Allows usage of the optional `spec.trafficDistribution` field in Services. The field offers a way to express preferences for how traffic is distributed to Service endpoints.

- `SidecarContainers` : Allow setting the `restartPolicy` of an init container to `Always` so that the container becomes a sidecar container (restartable init containers). See [Sidecar containers and restartPolicy](#) for more details.

- `SizeMemoryBackedVolumes` : Enable kubelets to determine the size limit for memory-backed volumes (mainly `emptyDir` volumes).

- `SkipReadOnlyValidationGCE` : Skip validation for GCE, will enable in

the next version.

- `StableLoadBalancerNodeSet` : Enables less load balancer re-configurations by the service controller (KCCM) as an effect of changing node state.

- `StatefulSetAutoDeletePVC` : Allows the use of the optional `.spec.persistentVolumeClaimRetentionPolicy` field, providing control over the deletion of PVCs in a StatefulSet's lifecycle. See [PersistentVolumeClaim retention](#) for more details.

- `StatefulSetStartOrdinal` : Allow configuration of the start ordinal in a StatefulSet. See [Start ordinal](#) for more details.

- `StorageVersionAPI` : Enable the [storage version API](#).

- `StorageVersionHash` : Allow API servers to expose the storage version hash in the discovery.

- `StorageVersionMigrator` : Enables storage version migration. See [Migrate Kubernetes Objects Using Storage Version Migration](#) for more details.

- `StructuredAuthenticationConfiguration` : Enable [structured authentication configuration](#) for the API server.

- `StructuredAuthorizationConfiguration` : Enable structured authorization configuration, so that cluster administrators can specify more than one [authorization webhook](#) in the API server handler chain.

- `SupplementalGroupsPolicy` : Enables support for fine-grained SupplementalGroups control. For more details, see [Configure fine-grained SupplementalGroups control for a Pod](#).

- `TopologyAwareHints` : Enables topology aware routing based on topology hints in EndpointSlices. See [Topology Aware Hints](#) for more details.

- `TopologyManagerPolicyAlphaOptions` : Allow fine-tuning of topology manager policies, experimental, Alpha-quality options. This feature gate guards *a group* of topology manager options whose quality level is alpha. This feature gate will never graduate to beta or stable.

- `TopologyManagerPolicyBetaOptions` : Allow fine-tuning of topology manager policies, experimental, Beta-quality options. This feature gate guards *a group* of topology manager options whose quality level is beta. This feature gate will never graduate to stable.

- `TopologyManagerPolicyOptions` : Enable [fine-tuning](#) of topology manager policies.

- `TranslateStreamCloseWebsocketRequests` : Allow WebSocket streaming of the remote command sub-protocol (`exec` , `cp` , `attach`) from clients requesting version 5 (v5) of the sub-protocol.

- `UnauthenticatedHTTP2DOSMitigation` : Enables HTTP/2 Denial of Service (DoS) mitigations for unauthenticated clients. Kubernetes v1.28.0 through v1.28.2 do not include this feature gate.

- `UnknownVersionInteroperabilityProxy` : Proxy resource requests to the correct peer kube-apiserver when multiple kube-apiservers exist at varied versions. See [Mixed version proxy](#) for more information.

- `UserNamespacesPodSecurityStandards` : Enable Pod Security Standards policies relaxation for pods that run with namespaces. You must set

the value of this feature gate consistently across all nodes in your cluster, and you must also enable `UserNamespacesSupport` to use this feature.

- `UserNamespacesSupport` : Enable user namespace support for Pods.

- `ValidatingAdmissionPolicy` : Enable [ValidatingAdmissionPolicy](#) support for CEL validations be used in Admission Control.

- `VolumeAttributesClass` : Enable support for VolumeAttributesClasses. See [Volume Attributes Classes](#) for more information.

- `VolumeCapacityPriority` : Enable support for prioritizing nodes in different topologies based on available PV capacity.

- `WatchBookmark` : Enable support for watch bookmark events.

- `WatchCacheInitializationPostStartHook` : Enables post-start-hook for watchcache initialization to be part of readyz (with timeout).

- `WatchFromStorageWithoutResourceVersion` : Enables watches without `resourceVersion` to be served from storage.

- `WatchList` : Enable support for [streaming initial state of objects in watch requests](#).

- `WindowsHostNetwork` : Enables support for joining Windows containers to a hosts' network namespace.

- `WinDSR` : Allows kube-proxy to create DSR loadbalancers for Windows.

- `WinOverlay` : Allows kube-proxy to run in overlay mode for Windows.

- `ZeroLimitedNominalConcurrencyShares` : Allow [priority & fairness](#) in the API server to use a zero value for the `nominalConcurrencyShares` field of the `limited` section of a priority level.

What's next

- The [deprecation policy](#) for Kubernetes explains the project's approach to removing features and components.
- Since Kubernetes 1.24, new beta APIs are not enabled by default. When enabling a beta feature, you will also need to enable any associated API resources. For example, to enable a particular resource like `storage.k8s.io/v1beta1/csistoragecapacities`, set `--runtime-config=storage.k8s.io/v1beta1/csistoragecapacities` . See [API Versioning](#) for more details on the command line flags.

12.2 - Feature Gates (removed)

This page contains list of feature gates that have been removed. The information on this page is for reference. A removed feature gate is different from a GA'ed or deprecated one in that a removed one is no longer recognized as a valid feature gate. However, a GA'ed or a deprecated feature gate is still recognized by the corresponding Kubernetes components although they are unable to cause any behavior differences in a cluster.

For feature gates that are still recognized by the Kubernetes components, please refer to the [Alpha/Beta feature gate table](#) or the [Graduated/Deprecated feature gate table](#)

Feature gates that are removed

In the following table:

- The "From" column contains the Kubernetes release when a feature is introduced or its release stage is changed.
- The "To" column, if not empty, contains the last Kubernetes release in which you can still use a feature gate. If the feature stage is either "Deprecated" or "GA", the "To" column is the Kubernetes release when the feature is removed.

Feature	Default	Stage	From	To
Accelerators	false	Alpha	1.6	1.
Accelerators	–	Deprecated	1.11	1.
AdvancedAuditing	false	Alpha	1.7	1.
AdvancedAuditing	true	Beta	1.8	1.
AdvancedAuditing	true	GA	1.12	1.
AffinityInAnnotations	false	Alpha	1.6	1.
AffinityInAnnotations	–	Deprecated	1.8	1.
AllowExtTrafficLocalEndpoints	false	Beta	1.4	1.
AllowExtTrafficLocalEndpoints	true	GA	1.7	1.
AllowInsecureBackendProxy	true	Beta	1.17	1.
AllowInsecureBackendProxy	true	GA	1.21	1.
APISelfSubjectReview	false	Alpha	1.26	1.
APISelfSubjectReview	true	Beta	1.27	1.
APISelfSubjectReview	true	GA	1.28	1.
AttachVolumeLimit	false	Alpha	1.11	1.
AttachVolumeLimit	true	Beta	1.12	1.

Feature	Default	Stage	From	To
`AttachVolumeLimit`	true	GA	1.17	1.
`BalanceAttachedNodeVolumes`	false	Alpha	1.11	1.
`BalanceAttachedNodeVolumes`	false	Deprecated	1.22	1.
`BlockVolume`	false	Alpha	1.9	1.
`BlockVolume`	true	Beta	1.13	1.
`BlockVolume`	true	GA	1.18	1.
`BoundServiceAccountTokenVolume`	false	Alpha	1.13	1.
`BoundServiceAccountTokenVolume`	true	Beta	1.21	1.
`BoundServiceAccountTokenVolume`	true	GA	1.22	1.
`ConfigurableFSGroupPolicy`	false	Alpha	1.18	1.
`ConfigurableFSGroupPolicy`	true	Beta	1.20	1.
`ConfigurableFSGroupPolicy`	true	GA	1.23	1.
`ConsistentHTTPGetHandlers`	true	GA	1.25	1.
`ControllerManagerLeaderMigration`	false	Alpha	1.21	1.
`ControllerManagerLeaderMigration`	true	Beta	1.22	1.
`ControllerManagerLeaderMigration`	true	GA	1.24	1.
`CRIContainerLogRotation`	false	Alpha	1.10	1.
`CRIContainerLogRotation`	true	Beta	1.11	1.
`CRIContainerLogRotation`	true	GA	1.21	1.
`CronJobControllerV2`	false	Alpha	1.20	1.
`CronJobControllerV2`	true	Beta	1.21	1.
`CronJobControllerV2`	true	GA	1.22	1.
`CronJobTimeZone`	false	Alpha	1.24	1.
`CronJobTimeZone`	true	Beta	1.25	1.
`CronJobTimeZone`	true	GA	1.27	1.
`CSIBlockVolume`	false	Alpha	1.11	1.
`CSIBlockVolume`	true	Beta	1.14	1.
`CSIBlockVolume`	true	GA	1.18	1.
`CSIDriverRegistry`	false	Alpha	1.12	1.

Feature	Default	Stage	From	To
`CSIDriverRegistry`	true	Beta	1.14	1.
`CSIDriverRegistry`	true	GA	1.18	1.
`CSIInlineVolume`	false	Alpha	1.15	1.
`CSIInlineVolume`	true	Beta	1.16	1.
`CSIInlineVolume`	true	GA	1.25	1.
`CSIMigration`	false	Alpha	1.14	1.
`CSIMigration`	true	Beta	1.17	1.
`CSIMigration`	true	GA	1.25	1.
`CSIMigrationAWS`	false	Alpha	1.14	1.
`CSIMigrationAWS`	false	Beta	1.17	1.
`CSIMigrationAWS`	true	Beta	1.23	1.
`CSIMigrationAWS`	true	GA	1.25	1.
`CSIMigrationAWSComplete`	false	Alpha	1.17	1.
`CSIMigrationAWSComplete`	–	Deprecated	1.21	1.
`CSIMigrationAzureDisk`	false	Alpha	1.15	1.
`CSIMigrationAzureDisk`	false	Beta	1.19	1.
`CSIMigrationAzureDisk`	true	Beta	1.23	1.
`CSIMigrationAzureDisk`	true	GA	1.24	1.
`CSIMigrationAzureDiskComplete`	false	Alpha	1.17	1.
`CSIMigrationAzureDiskComplete`	–	Deprecated	1.21	1.
`CSIMigrationAzureFile`	false	Alpha	1.15	1.
`CSIMigrationAzureFile`	false	Beta	1.21	1.
`CSIMigrationAzureFile`	true	Beta	1.24	1.
`CSIMigrationAzureFile`	true	GA	1.26	1.
`CSIMigrationAzureFileComplete`	false	Alpha	1.17	1.
`CSIMigrationAzureFileComplete`	–	Deprecated	1.21	1.
`CSIMigrationGCE`	false	Alpha	1.14	1.
`CSIMigrationGCE`	false	Beta	1.17	1.
`CSIMigrationGCE`	true	Beta	1.23	1.

Feature	Default	Stage	From	To
CSIMigrationGCE	true	GA	1.25	1.
CSIMigrationGCEComplete	false	Alpha	1.17	1.
CSIMigrationGCEComplete	–	Deprecated	1.21	1.
CSIMigrationOpenStack	false	Alpha	1.14	1.
CSIMigrationOpenStack	true	Beta	1.18	1.
CSIMigrationOpenStack	true	GA	1.24	1.
CSIMigrationOpenStackComplete	false	Alpha	1.17	1.
CSIMigrationOpenStackComplete	–	Deprecated	1.21	1.
CSIMigrationvSphere	false	Alpha	1.18	1.
CSIMigrationvSphere	false	Beta	1.19	1.
CSIMigrationvSphere	true	Beta	1.25	1.
CSIMigrationvSphere	true	GA	1.26	1.
CSIMigrationvSphereComplete	false	Beta	1.19	1.
CSIMigrationvSphereComplete	–	Deprecated	1.22	1.
CSINodeExpandSecret	false	Alpha	1.25	1.
CSINodeExpandSecret	true	Beta	1.27	1.
CSINodeExpandSecret	true	GA	1.29	1.
CSINodeInfo	false	Alpha	1.12	1.
CSINodeInfo	true	Beta	1.14	1.
CSINodeInfo	true	GA	1.17	1.
CSIPersistentVolume	false	Alpha	1.9	1.9
CSIPersistentVolume	true	Beta	1.10	1.
CSIPersistentVolume	true	GA	1.13	1.
CSIServiceAccountToken	false	Alpha	1.20	1.
CSIServiceAccountToken	true	Beta	1.21	1.
CSIServiceAccountToken	true	GA	1.22	1.
CSIStorageCapacity	false	Alpha	1.19	1.
CSIStorageCapacity	true	Beta	1.21	1.
CSIStorageCapacity	true	GA	1.24	1.

Feature	Default	Stage	From	To
CSIVolumeFSGroupPolicy	false	Alpha	1.19	1.
CSIVolumeFSGroupPolicy	true	Beta	1.20	1.
CSIVolumeFSGroupPolicy	true	GA	1.23	1.
CSRDuration	true	Beta	1.22	1.
CSRDuration	true	GA	1.24	1.
CustomPodDNS	false	Alpha	1.9	1.
CustomPodDNS	true	Beta	1.10	1.
CustomPodDNS	true	GA	1.14	1.
CustomResourceDefaulting	false	Alpha	1.15	1.
CustomResourceDefaulting	true	Beta	1.16	1.
CustomResourceDefaulting	true	GA	1.17	1.
CustomResourcePublishOpenAPI	false	Alpha	1.14	1.
CustomResourcePublishOpenAPI	true	Beta	1.15	1.
CustomResourcePublishOpenAPI	true	GA	1.16	1.
CustomResourceSubresources	false	Alpha	1.10	1.
CustomResourceSubresources	true	Beta	1.11	1.
CustomResourceSubresources	true	GA	1.16	1.
CustomResourceValidation	false	Alpha	1.8	1.
CustomResourceValidation	true	Beta	1.9	1.
CustomResourceValidation	true	GA	1.16	1.
CustomResourceValidationExpressions	false	Alpha	1.23	1.
CustomResourceValidationExpressions	true	Beta	1.25	1.
CustomResourceValidationExpressions	true	GA	1.29	1.
CustomResourceWebhookConversion	false	Alpha	1.13	1.
CustomResourceWebhookConversion	true	Beta	1.15	1.
CustomResourceWebhookConversion	true	GA	1.16	1.
DaemonSetUpdateSurge	false	Alpha	1.21	1.
DaemonSetUpdateSurge	true	Beta	1.22	1.
DaemonSetUpdateSurge	true	GA	1.25	1.

Feature	Default	Stage	From	To
DefaultPodTopologySpread	false	Alpha	1.19	1.
DefaultPodTopologySpread	true	Beta	1.20	1.
DefaultPodTopologySpread	true	GA	1.24	1.
DelegateFSGroupToCSIDriver	false	Alpha	1.22	1.
DelegateFSGroupToCSIDriver	true	Beta	1.23	1.
DelegateFSGroupToCSIDriver	true	GA	1.26	1.
DevicePlugins	false	Alpha	1.8	1.
DevicePlugins	true	Beta	1.10	1.
DevicePlugins	true	GA	1.26	1.
DisableAcceleratorUsageMetrics	false	Alpha	1.19	1.
DisableAcceleratorUsageMetrics	true	Beta	1.20	1.
DisableAcceleratorUsageMetrics	true	GA	1.25	1.
DownwardAPIHugePages	false	Alpha	1.20	1.
DownwardAPIHugePages	false	Beta	1.21	1.
DownwardAPIHugePages	true	Beta	1.22	1.
DownwardAPIHugePages	true	GA	1.27	1.
DryRun	false	Alpha	1.12	1.
DryRun	true	Beta	1.13	1.
DryRun	true	GA	1.19	1.
DynamicAuditing	false	Alpha	1.13	1.
DynamicAuditing	–	Deprecated	1.19	1.
DynamicKubeletConfig	false	Alpha	1.4	1.
DynamicKubeletConfig	true	Beta	1.11	1.
DynamicKubeletConfig	false	Deprecated	1.22	1.
DynamicProvisioningScheduling	false	Alpha	1.11	1.
DynamicProvisioningScheduling	–	Deprecated	1.12	–
DynamicVolumeProvisioning	true	Alpha	1.3	1.
DynamicVolumeProvisioning	true	GA	1.8	1.
EnableAggregatedDiscoveryTimeout	true	Deprecated	1.16	1.

Feature	Default	Stage	From	To
EnableEquivalenceClassCache	false	Alpha	1.8	1.
EnableEquivalenceClassCache	–	Deprecated	1.13	1.
EndpointSlice	false	Alpha	1.16	1.
EndpointSlice	false	Beta	1.17	1.
EndpointSlice	true	Beta	1.18	1.
EndpointSlice	true	GA	1.21	1.
EndpointSliceNodeName	false	Alpha	1.20	1.
EndpointSliceNodeName	true	GA	1.21	1.
EndpointSliceProxying	false	Alpha	1.18	1.
EndpointSliceProxying	true	Beta	1.19	1.
EndpointSliceProxying	true	GA	1.22	1.
EndpointSliceTerminatingCondition	false	Alpha	1.20	1.
EndpointSliceTerminatingCondition	true	Beta	1.22	1.
EndpointSliceTerminatingCondition	true	GA	1.26	1.
EphemeralContainers	false	Alpha	1.16	1.
EphemeralContainers	true	Beta	1.23	1.
EphemeralContainers	true	GA	1.25	1.
EvenPodsSpread	false	Alpha	1.16	1.
EvenPodsSpread	true	Beta	1.18	1.
EvenPodsSpread	true	GA	1.19	1.
ExpandCSIVolumes	false	Alpha	1.14	1.
ExpandCSIVolumes	true	Beta	1.16	1.
ExpandCSIVolumes	true	GA	1.24	1.
ExpandedDNSConfig	false	Alpha	1.22	1.
ExpandedDNSConfig	true	Beta	1.26	1.
ExpandedDNSConfig	true	GA	1.28	1.
ExpandInUsePersistentVolumes	false	Alpha	1.11	1.
ExpandInUsePersistentVolumes	true	Beta	1.15	1.
ExpandInUsePersistentVolumes	true	GA	1.24	1.

Feature	Default	Stage	From	To
ExpandPersistentVolumes	false	Alpha	1.8	1.
ExpandPersistentVolumes	true	Beta	1.11	1.
ExpandPersistentVolumes	true	GA	1.24	1.
ExperimentalCriticalPodAnnotation	false	Alpha	1.5	1.
ExperimentalCriticalPodAnnotation	false	Deprecated	1.13	1.
ExperimentalHostUserNamespaceDefaulting	false	Beta	1.5	1.
ExperimentalHostUserNamespaceDefaulting	false	Deprecated	1.28	1.
ExternalPolicyForExternalIP	true	GA	1.18	1.
GCERegionalPersistentDisk	true	Beta	1.10	1.
GCERegionalPersistentDisk	true	GA	1.13	1.
GenericEphemeralVolume	false	Alpha	1.19	1.
GenericEphemeralVolume	true	Beta	1.21	1.
GenericEphemeralVolume	true	GA	1.23	1.
GRPCContainerProbe	false	Alpha	1.23	1.
GRPCContainerProbe	true	Beta	1.24	1.
GRPCContainerProbe	true	GA	1.27	1.
HugePages	false	Alpha	1.8	1.
HugePages	true	Beta	1.10	1.
HugePages	true	GA	1.14	1.
HugePageStorageMediumSize	false	Alpha	1.18	1.
HugePageStorageMediumSize	true	Beta	1.19	1.
HugePageStorageMediumSize	true	GA	1.22	1.
HyperVContainer	false	Alpha	1.10	1.
HyperVContainer	false	Deprecated	1.20	1.
IdentifyPodOS	false	Alpha	1.23	1.
IdentifyPodOS	true	Beta	1.24	1.
IdentifyPodOS	true	GA	1.25	1.
ImmutableEphemeralVolumes	false	Alpha	1.18	1.
ImmutableEphemeralVolumes	true	Beta	1.19	1.

Feature	Default	Stage	From	To
ImmutableEphemeralVolumes	true	GA	1.21	1.
IndexedJob	false	Alpha	1.21	1.
IndexedJob	true	Beta	1.22	1.
IndexedJob	true	GA	1.24	1.
IngressClassNamespacedParams	false	Alpha	1.21	1.
IngressClassNamespacedParams	true	Beta	1.22	1.
IngressClassNamespacedParams	true	GA	1.23	1.
Initializers	false	Alpha	1.7	1.
Initializers	–	Deprecated	1.14	1.
InTreePluginAWSUnregister	false	Alpha	1.21	1.
InTreePluginAzureDiskUnregister	false	Alpha	1.21	1.
InTreePluginAzureFileUnregister	false	Alpha	1.21	1.
InTreePluginGCEUnregister	false	Alpha	1.21	1.
InTreePluginOpenStackUnregister	false	Alpha	1.21	1.
InTreePluginvSphereUnregister	false	Alpha	1.21	1.
IPTablesOwnershipCleanup	false	Alpha	1.25	1.
IPTablesOwnershipCleanup	true	Beta	1.27	1.
IPTablesOwnershipCleanup	true	GA	1.28	1.
IPv6DualStack	false	Alpha	1.15	1.
IPv6DualStack	true	Beta	1.21	1.
IPv6DualStack	true	GA	1.23	1.
JobMutableNodeSchedulingDirectives	true	Beta	1.23	1.
JobMutableNodeSchedulingDirectives	true	GA	1.27	1.
JobTrackingWithFinalizers	false	Alpha	1.22	1.
JobTrackingWithFinalizers	false	Beta	1.23	1.
JobTrackingWithFinalizers	true	Beta	1.25	1.
JobTrackingWithFinalizers	true	GA	1.26	1.
KubeletConfigFile	false	Alpha	1.8	1.9
KubeletConfigFile	–	Deprecated	1.10	1.

Feature	Default	Stage	From	To
KubeletCredentialProviders	false	Alpha	1.20	1.
KubeletCredentialProviders	true	Beta	1.24	1.
KubeletCredentialProviders	true	GA	1.26	1.
KubeletPluginsWatcher	false	Alpha	1.11	1.
KubeletPluginsWatcher	true	Beta	1.12	1.
KubeletPluginsWatcher	true	GA	1.13	1.
KubeletPodResources	false	Alpha	1.13	1.
KubeletPodResources	true	Beta	1.15	1.
KubeletPodResources	true	GA	1.28	1.
KubeletPodResourcesGetAllocatable	false	Alpha	1.21	1.
KubeletPodResourcesGetAllocatable	true	Beta	1.23	1.
KubeletPodResourcesGetAllocatable	true	GA	1.28	1.
LegacyNodeRoleBehavior	false	Alpha	1.16	1.
LegacyNodeRoleBehavior	true	Beta	1.19	1.
LegacyNodeRoleBehavior	false	GA	1.21	1.
LegacyServiceAccountTokenNoAutoGeneration	true	Beta	1.24	1.
LegacyServiceAccountTokenNoAutoGeneration	true	GA	1.26	1.
LegacyServiceAccountTokenTracking	false	Alpha	1.26	1.
LegacyServiceAccountTokenTracking	true	Beta	1.27	1.
LegacyServiceAccountTokenTracking	true	GA	1.28	1.
LocalStorageCapacityIsolation	false	Alpha	1.7	1.
LocalStorageCapacityIsolation	true	Beta	1.10	1.
LocalStorageCapacityIsolation	true	GA	1.25	1.
MinimizeIPTablesRestore	false	Alpha	1.26	1.
MinimizeIPTablesRestore	true	Beta	1.27	1.
MinimizeIPTablesRestore	true	GA	1.28	1.
MixedProtocolLBService	false	Alpha	1.20	1.
MixedProtocolLBService	true	Beta	1.24	1.
MixedProtocolLBService	true	GA	1.26	1.

Feature	Default	Stage	From	To
MountContainers	false	Alpha	1.9	1.
MountContainers	false	Deprecated	1.17	1.
MountPropagation	false	Alpha	1.8	1.9
MountPropagation	true	Beta	1.10	1.
MountPropagation	true	GA	1.12	1.
MultiCIDRRangeAllocator	false	Alpha	1.25	1.
NamespaceDefaultLabelName	true	Beta	1.21	1.
NamespaceDefaultLabelName	true	GA	1.22	1.
NetworkPolicyEndPort	false	Alpha	1.21	1.
NetworkPolicyEndPort	true	Beta	1.22	1.
NetworkPolicyEndPort	true	GA	1.25	1.
NetworkPolicyStatus	false	Alpha	1.24	1.
NodeDisruptionExclusion	false	Alpha	1.16	1.
NodeDisruptionExclusion	true	Beta	1.19	1.
NodeDisruptionExclusion	true	GA	1.21	1.
NodeLease	false	Alpha	1.12	1.
NodeLease	true	Beta	1.14	1.
NodeLease	true	GA	1.17	1.
NonPreemptingPriority	false	Alpha	1.15	1.
NonPreemptingPriority	true	Beta	1.19	1.
NonPreemptingPriority	true	GA	1.24	1.
OpenAPIV3	false	Alpha	1.23	1.
OpenAPIV3	true	Beta	1.24	1.
OpenAPIV3	true	GA	1.27	1.
PersistentLocalVolumes	false	Alpha	1.7	1.9
PersistentLocalVolumes	true	Beta	1.10	1.
PersistentLocalVolumes	true	GA	1.14	1.
PodAffinityNamespaceSelector	false	Alpha	1.21	1.
PodAffinityNamespaceSelector	true	Beta	1.22	1.

Feature	Default	Stage	From	To
PodAffinityNamespaceSelector	true	GA	1.24	1.
PodDisruptionBudget	false	Alpha	1.3	1.
PodDisruptionBudget	true	Beta	1.5	1.
PodDisruptionBudget	true	GA	1.21	1.
PodHasNetworkCondition	false	Alpha	1.25	1.
PodOverhead	false	Alpha	1.16	1.
PodOverhead	true	Beta	1.18	1.
PodOverhead	true	GA	1.24	1.
PodPriority	false	Alpha	1.8	1.
PodPriority	true	Beta	1.11	1.
PodPriority	true	GA	1.14	1.
PodReadinessGates	false	Alpha	1.11	1.
PodReadinessGates	true	Beta	1.12	1.
PodReadinessGates	true	GA	1.14	1.
PodSecurity	false	Alpha	1.22	1.
PodSecurity	true	Beta	1.23	1.
PodSecurity	true	GA	1.25	1.
PodShareProcessNamespace	false	Alpha	1.10	1.
PodShareProcessNamespace	true	Beta	1.12	1.
PodShareProcessNamespace	true	GA	1.17	1.
PreferNominatedNode	false	Alpha	1.21	1.
PreferNominatedNode	true	Beta	1.22	1.
PreferNominatedNode	true	GA	1.24	1.
ProbeTerminationGracePeriod	false	Alpha	1.21	1.
ProbeTerminationGracePeriod	false	Beta	1.22	1.
ProbeTerminationGracePeriod	true	Beta	1.25	1.
ProbeTerminationGracePeriod	true	GA	1.28	1.
ProxyTerminatingEndpoints	false	Alpha	1.22	1.
ProxyTerminatingEndpoints	true	Beta	1.26	1.

Feature	Default	Stage	From	To
`ProxyTerminatingEndpoints`	`true`	GA	1.28	1.2
`PVCProtection`	`false`	Alpha	1.9	1.9
`PVCProtection`	–	Deprecated	1.10	1.
`ReadOnlyAPIDataVolumes`	`true`	Beta	1.8	1.9
`ReadOnlyAPIDataVolumes`	–	GA	1.10	1.
`ReadWriteOncePod`	`false`	Alpha	1.22	1.2
`ReadWriteOncePod`	`true`	Beta	1.27	1.2
`ReadWriteOncePod`	`true`	GA	1.29	1.2
`RemoveSelfLink`	`false`	Alpha	1.16	1.
`RemoveSelfLink`	`true`	Beta	1.20	1.2
`RemoveSelfLink`	`true`	GA	1.24	1.2
`RequestManagement`	`false`	Alpha	1.15	1.
`RequestManagement`	–	Deprecated	1.17	1.
`ResourceLimitsPriorityFunction`	`false`	Alpha	1.9	1.
`ResourceLimitsPriorityFunction`	–	Deprecated	1.19	1.
`ResourceQuotaScopeSelectors`	`false`	Alpha	1.11	1.
`ResourceQuotaScopeSelectors`	`true`	Beta	1.12	1.
`ResourceQuotaScopeSelectors`	`true`	GA	1.17	1.
`RetroactiveDefaultStorageClass`	`false`	Alpha	1.25	1.2
`RetroactiveDefaultStorageClass`	`true`	Beta	1.26	1.2
`RetroactiveDefaultStorageClass`	`true`	GA	1.28	1.2
`RootCAConfigMap`	`false`	Alpha	1.13	1.
`RootCAConfigMap`	`true`	Beta	1.20	1.2
`RootCAConfigMap`	`true`	GA	1.21	1.2
`RotateKubeletClientCertificate`	`true`	Beta	1.8	1.
`RotateKubeletClientCertificate`	`true`	GA	1.19	1.2
`RunAsGroup`	`true`	Beta	1.14	1.2
`RunAsGroup`	`true`	GA	1.21	1.2
`RuntimeClass`	`false`	Alpha	1.12	1.

Feature	Default	Stage	From	To
RuntimeClass	true	Beta	1.14	1.
RuntimeClass	true	GA	1.20	1.
ScheduleDaemonSetPods	false	Alpha	1.11	1.
ScheduleDaemonSetPods	true	Beta	1.12	1.
ScheduleDaemonSetPods	true	GA	1.17	1.
SCTPSupport	false	Alpha	1.12	1.
SCTPSupport	true	Beta	1.19	1.
SCTPSupport	true	GA	1.20	1.
SeccompDefault	false	Alpha	1.22	1.
SeccompDefault	true	Beta	1.25	1.
SeccompDefault	true	GA	1.27	1.
SecurityContextDeny	false	Alpha	1.27	1.
SelectorIndex	false	Alpha	1.18	1.
SelectorIndex	true	Beta	1.19	1.
SelectorIndex	true	GA	1.20	1.
ServiceAccountIssuerDiscovery	false	Alpha	1.18	1.
ServiceAccountIssuerDiscovery	true	Beta	1.20	1.
ServiceAccountIssuerDiscovery	true	GA	1.21	1.
ServiceAppProtocol	false	Alpha	1.18	1.
ServiceAppProtocol	true	Beta	1.19	1.
ServiceAppProtocol	true	GA	1.20	1.
ServiceInternalTrafficPolicy	false	Alpha	1.21	1.
ServiceInternalTrafficPolicy	true	Beta	1.22	1.
ServiceInternalTrafficPolicy	true	GA	1.26	1.
ServiceIPStaticSubrange	false	Alpha	1.24	1.
ServiceIPStaticSubrange	true	Beta	1.25	1.
ServiceIPStaticSubrange	true	GA	1.26	1.
ServiceLBNodePortControl	false	Alpha	1.20	1.
ServiceLBNodePortControl	true	Beta	1.22	1.

Feature	Default	Stage	From	To
ServiceLBNodePortControl	true	GA	1.24	1.2
ServiceLoadBalancerClass	false	Alpha	1.21	1.2
ServiceLoadBalancerClass	true	Beta	1.22	1.2
ServiceLoadBalancerClass	true	GA	1.24	1.2
ServiceLoadBalancerFinalizer	false	Alpha	1.15	1.
ServiceLoadBalancerFinalizer	true	Beta	1.16	1.
ServiceLoadBalancerFinalizer	true	GA	1.17	1.2
ServiceNodeExclusion	false	Alpha	1.8	1.
ServiceNodeExclusion	true	Beta	1.19	1.2
ServiceNodeExclusion	true	GA	1.21	1.2
ServiceNodePortStaticSubrange	false	Alpha	1.27	1.2
ServiceNodePortStaticSubrange	true	Beta	1.28	1.2
ServiceNodePortStaticSubrange	true	GA	1.29	1.2
ServiceTopology	false	Alpha	1.17	1.
ServiceTopology	false	Deprecated	1.20	1.2
SetHostnameAsFQDN	false	Alpha	1.19	1.
SetHostnameAsFQDN	true	Beta	1.20	1.2
SetHostnameAsFQDN	true	GA	1.22	1.2
StartupProbe	false	Alpha	1.16	1.
StartupProbe	true	Beta	1.18	1.
StartupProbe	true	GA	1.20	1.2
StatefulSetMinReadySeconds	false	Alpha	1.22	1.2
StatefulSetMinReadySeconds	true	Beta	1.23	1.2
StatefulSetMinReadySeconds	true	GA	1.25	1.2
StorageObjectInUseProtection	true	Beta	1.10	1.
StorageObjectInUseProtection	true	GA	1.11	1.2
StreamingProxyRedirects	false	Beta	1.5	1.5
StreamingProxyRedirects	true	Beta	1.6	1.
StreamingProxyRedirects	true	Deprecated	1.18	1.2

Feature	Default	Stage	From	To
StreamingProxyRedirects	false	Deprecated	1.22	1.
SupportIPVSProxyMode	false	Alpha	1.8	1.
SupportIPVSProxyMode	false	Beta	1.9	1.
SupportIPVSProxyMode	true	Beta	1.10	1.
SupportIPVSProxyMode	true	GA	1.11	1.
SupportNodePidsLimit	false	Alpha	1.14	1.
SupportNodePidsLimit	true	Beta	1.15	1.
SupportNodePidsLimit	true	GA	1.20	1.
SupportPodPidsLimit	false	Alpha	1.10	1.
SupportPodPidsLimit	true	Beta	1.14	1.
SupportPodPidsLimit	true	GA	1.20	1.
SuspendJob	false	Alpha	1.21	1.
SuspendJob	true	Beta	1.22	1.
SuspendJob	true	GA	1.24	1.
Sysctls	true	Beta	1.11	1.
Sysctls	true	GA	1.21	1.
TaintBasedEvictions	false	Alpha	1.6	1.
TaintBasedEvictions	true	Beta	1.13	1.
TaintBasedEvictions	true	GA	1.18	1.
TaintNodesByCondition	false	Alpha	1.8	1.
TaintNodesByCondition	true	Beta	1.12	1.
TaintNodesByCondition	true	GA	1.17	1.
TokenRequest	false	Alpha	1.10	1.
TokenRequest	true	Beta	1.12	1.
TokenRequest	true	GA	1.20	1.
TokenRequestProjection	false	Alpha	1.11	1.
TokenRequestProjection	true	Beta	1.12	1.
TokenRequestProjection	true	GA	1.20	1.
TopologyManager	false	Alpha	1.16	1.

Feature	Default	Stage	From	To
TopologyManager	true	Beta	1.18	1.2
TopologyManager	true	GA	1.27	1.2
TTLAfterFinished	false	Alpha	1.12	1.2
TTLAfterFinished	true	Beta	1.21	1.2
TTLAfterFinished	true	GA	1.23	1.2
UserNamespacesStatelessPodsSupport	false	Alpha	1.25	1.2
ValidateProxyRedirects	false	Alpha	1.12	1.
ValidateProxyRedirects	true	Beta	1.14	1.2
ValidateProxyRedirects	true	Deprecated	1.22	1.2
VolumePVCDataSource	false	Alpha	1.15	1.
VolumePVCDataSource	true	Beta	1.16	1.
VolumePVCDataSource	true	GA	1.18	1.2
VolumeScheduling	false	Alpha	1.9	1.9
VolumeScheduling	true	Beta	1.10	1.
VolumeScheduling	true	GA	1.13	1.
VolumeSnapshotDataSource	false	Alpha	1.12	1.
VolumeSnapshotDataSource	true	Beta	1.17	1.
VolumeSnapshotDataSource	true	GA	1.20	1.2
VolumeSubpath	true	GA	1.10	1.2
VolumeSubpathEnvExpansion	false	Alpha	1.14	1.
VolumeSubpathEnvExpansion	true	Beta	1.15	1.
VolumeSubpathEnvExpansion	true	GA	1.17	1.2
WarningHeaders	true	Beta	1.19	1.2
WarningHeaders	true	GA	1.22	1.2
WindowsEndpointSliceProxying	false	Alpha	1.19	1.2
WindowsEndpointSliceProxying	true	Beta	1.21	1.2
WindowsEndpointSliceProxying	true	GA	1.22	1.2
WindowsGMSA	false	Alpha	1.14	1.
WindowsGMSA	true	Beta	1.16	1.

Feature	Default	Stage	From	To
`WindowsGMSA`	`true`	GA	1.18	1.2
`WindowsHostProcessContainers`	`false`	Alpha	1.22	1.2
`WindowsHostProcessContainers`	`true`	Beta	1.23	1.2
`WindowsHostProcessContainers`	`true`	GA	1.26	1.2
`WindowsRunAsUserName`	`false`	Alpha	1.16	1.
`WindowsRunAsUserName`	`true`	Beta	1.17	1.
`WindowsRunAsUserName`	`true`	GA	1.18	1.2

Descriptions for removed feature gates

- `Accelerators` : Provided an early form of plugin to enable Nvidia GPU support when using Docker Engine; no longer available. See [Device Plugins](#) for an alternative.

- `AdvancedAuditing` : Enable [advanced auditing](#)

- `AffinityInAnnotations` : Enable setting [Pod affinity or anti-affinity](#).

- `AllowExtTrafficLocalEndpoints` : Enable a service to route external requests to node local endpoints.

- `AllowInsecureBackendProxy` : Enable the users to skip TLS verification of kubelets on Pod log requests.

- `APISelfSubjectReview` : Activate the `SelfSubjectReview` API which allows users to see the requesting subject's authentication information. See [API access to authentication information for a client](#) for more details.

- `AttachVolumeLimit` : Enable volume plugins to report limits on number of volumes that can be attached to a node. See [dynamic volume limits](#) for more details.

- `BalanceAttachedNodeVolumes` : Include volume count on node to be considered for balanced resource allocation while scheduling. A node which has closer CPU, memory utilization, and volume count is favored by the scheduler while making decisions.

- `BlockVolume` : Enable the definition and consumption of raw block devices in Pods. See [Raw Block Volume Support](#) for more details.

- `BoundServiceAccountTokenVolume` : Migrate ServiceAccount volumes to use a projected volume consisting of a ServiceAccountTokenVolumeProjection. Cluster admins can use metric `serviceaccount_stale_tokens_total` to monitor workloads that are depending on the extended tokens. If there are no such workloads, turn off extended tokens by starting `kube-apiserver` with flag `--service-account-extend-token-expiration=false` .

  Check [Bound Service Account Tokens](#) for more details.

- `ConfigurableFSGroupPolicy` : Allows user to configure volume

permission change policy for fsGroups when mounting a volume in a Pod. See [Configure volume permission and ownership change policy for Pods](#) for more details.

- `ConsistentHTTPGetHandlers` : Normalize HTTP get URL and Header passing for lifecycle handlers with probers.

- `ControllerManagerLeaderMigration` : Enables Leader Migration for [kube-controller-manager](#) and [cloud-controller-manager](#) which allows a cluster operator to live migrate controllers from the kube-controller-manager into an external controller-manager (e.g. the cloud-controller-manager) in an HA cluster without downtime.

- `CRIContainerLogRotation` : Enable container log rotation for CRI container runtime. The default max size of a log file is 10MB and the default max number of log files allowed for a container is 5. These values can be configured in the kubelet config. See [logging at node level](#) for more details.

- `CronJobControllerV2` : Use an alternative implementation of the CronJob controller. Otherwise, version 1 of the same controller is selected.

- `CronJobTimeZone` : Allow the use of the `timeZone` optional field in [CronJobs](#)

- `CSIBlockVolume` : Enable external CSI volume drivers to support block storage. See [`csi` raw block volume support](#) for more details.

- `CSIDriverRegistry` : Enable all logic related to the CSIDriver API object in `csi.storage.k8s.io` .

- `CSIInlineVolume` : Enable CSI Inline volumes support for pods.

- `CSIMigration` : Enables shims and translation logic to route volume operations from in-tree plugins to corresponding pre-installed CSI plugins

- `CSIMigrationAWS` : Enables shims and translation logic to route volume operations from the AWS-EBS in-tree plugin to EBS CSI plugin. Supports falling back to in-tree EBS plugin for mount operations to nodes that have the feature disabled or that do not have EBS CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured.

- `CSIMigrationAWSComplete` : Stops registering the EBS in-tree plugin in kubelet and volume controllers and enables shims and translation logic to route volume operations from the AWS-EBS in-tree plugin to EBS CSI plugin. Requires CSIMigration and CSIMigrationAWS feature flags enabled and EBS CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginAWSUnregister` feature flag which prevents the registration of in-tree EBS plugin.

- `CSIMigrationAzureDisk` : Enables shims and translation logic to route volume operations from the Azure-Disk in-tree plugin to AzureDisk CSI plugin. Supports falling back to in-tree AzureDisk plugin for mount operations to nodes that have the feature disabled or that do not have AzureDisk CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured. Requires CSIMigration feature flag enabled.

- `CSIMigrationAzureDiskComplete` : Stops registering the Azure-Disk in-tree plugin in kubelet and volume controllers and enables shims

and translation logic to route volume operations from the Azure-Disk in-tree plugin to AzureDisk CSI plugin. Requires CSIMigration and CSIMigrationAzureDisk feature flags enabled and AzureDisk CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginAzureDiskUnregister` feature flag which prevents the registration of in-tree AzureDisk plugin.

- `CSIMigrationAzureFile` : Enables shims and translation logic to route volume operations from the Azure-File in-tree plugin to AzureFile CSI plugin. Supports falling back to in-tree AzureFile plugin for mount operations to nodes that have the feature disabled or that do not have AzureFile CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured. Requires CSIMigration feature flag enabled.

- `CSIMigrationAzureFileComplete` : Stops registering the Azure-File in-tree plugin in kubelet and volume controllers and enables shims and translation logic to route volume operations from the Azure-File in-tree plugin to AzureFile CSI plugin. Requires CSIMigration and CSIMigrationAzureFile feature flags enabled and AzureFile CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginAzureFileUnregister` feature flag which prevents the registration of in-tree AzureFile plugin.

- `CSIMigrationGCE` : Enables shims and translation logic to route volume operations from the GCE-PD in-tree plugin to PD CSI plugin. Supports falling back to in-tree GCE plugin for mount operations to nodes that have the feature disabled or that do not have PD CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured. Requires CSIMigration feature flag enabled.

- `CSIMigrationGCEComplete` : Stops registering the GCE-PD in-tree plugin in kubelet and volume controllers and enables shims and translation logic to route volume operations from the GCE-PD in-tree plugin to PD CSI plugin. Requires CSIMigration and CSIMigrationGCE feature flags enabled and PD CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginGCEUnregister` feature flag which prevents the registration of in-tree GCE PD plugin.

- `CSIMigrationOpenStack` : Enables shims and translation logic to route volume operations from the Cinder in-tree plugin to Cinder CSI plugin. Supports falling back to in-tree Cinder plugin for mount operations to nodes that have the feature disabled or that do not have Cinder CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured. Requires CSIMigration feature flag enabled.

- `CSIMigrationOpenStackComplete` : Stops registering the Cinder in-tree plugin in kubelet and volume controllers and enables shims and translation logic to route volume operations from the Cinder in-tree plugin to Cinder CSI plugin. Requires CSIMigration and CSIMigrationOpenStack feature flags enabled and Cinder CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginOpenStackUnregister` feature flag which prevents the registration of in-tree openstack cinder plugin.

- `CSIMigrationvSphere` : Enables shims and translation logic to route

volume operations from the vSphere in-tree plugin to vSphere CSI plugin. Supports falling back to in-tree vSphere plugin for mount operations to nodes that have the feature disabled or that do not have vSphere CSI plugin installed and configured. Does not support falling back for provision operations, for those the CSI plugin must be installed and configured. Requires CSIMigration feature flag enabled.

- `CSIMigrationvSphereComplete` : Stops registering the vSphere in-tree plugin in kubelet and volume controllers and enables shims and translation logic to route volume operations from the vSphere in-tree plugin to vSphere CSI plugin. Requires CSIMigration and CSIMigrationvSphere feature flags enabled and vSphere CSI plugin installed and configured on all nodes in the cluster. This flag has been deprecated in favor of the `InTreePluginvSphereUnregister` feature flag which prevents the registration of in-tree vsphere plugin.

- `CSINodeExpandSecret` : Enable passing secret authentication data to a CSI driver for use during a `NodeExpandVolume` CSI operation.

- `CSINodeInfo` : Enable all logic related to the CSINodeInfo API object in `csi.storage.k8s.io` .

- `CSIPersistentVolume` : Enable discovering and mounting volumes provisioned through a [CSI (Container Storage Interface)](#) compatible volume plugin.

- `CSIServiceAccountToken` : Enable CSI drivers to receive the pods' service account token that they mount volumes for. See [Token Requests](#).

- `CSIStorageCapacity` : Enables CSI drivers to publish storage capacity information and the Kubernetes scheduler to use that information when scheduling pods. See [Storage Capacity](#). Check the [`csi` volume type](#) documentation for more details.

- `CSIVolumeFSGroupPolicy` : Allows CSIDrivers to use the `fsGroupPolicy` field. This field controls whether volumes created by a CSIDriver support volume ownership and permission modifications when these volumes are mounted.

- `CSRDuration` : Allows clients to request a duration for certificates issued via the Kubernetes CSR API.

- `CustomPodDNS` : Enable customizing the DNS settings for a Pod using its `dnsConfig` property. Check [Pod's DNS Config](#) for more details.

- `CustomResourceDefaulting` : Enable CRD support for default values in OpenAPI v3 validation schemas.

- `CustomResourcePublishOpenAPI` : Enables publishing of CRD OpenAPI specs.

- `CustomResourceSubresources` : Enable `/status` and `/scale` subresources on resources created from [CustomResourceDefinition](#).

- `CustomResourceValidation` : Enable schema based validation on resources created from [CustomResourceDefinition](#).

- `CustomResourceValidationExpressions` : Enable expression language validation in CRD which will validate customer resource based on validation rules written in the `x-kubernetes-validations` extension.

- `CustomResourceWebhookConversion` : Enable webhook-based conversion on resources created from [CustomResourceDefinition](#).

- `DaemonSetUpdateSurge` : Enables the DaemonSet workloads to maintain availability during update per node. See [Perform a Rolling Update on a DaemonSet](#).

- `DefaultPodTopologySpread` : Enables the use of `PodTopologySpread` scheduling plugin to do [default spreading](#).

- `DelegateFSGroupToCSIDriver` : If supported by the CSI driver, delegates the role of applying `fsGroup` from a Pod's `securityContext` to the driver by passing `fsGroup` through the NodeStageVolume and NodePublishVolume CSI calls.

- `DevicePlugins` : Enable the [device-plugins](#) based resource provisioning on nodes.

- `DisableAcceleratorUsageMetrics` : [Disable accelerator metrics collected by the kubelet](#).

- `DownwardAPIHugePages` : Enables usage of hugepages in [downward API](#).

- `DryRun` : Enable server-side [dry run](#) requests so that validation, merging, and mutation can be tested without committing.

- `DynamicAuditing` : Used to enable dynamic auditing before v1.19.

- `DynamicKubeletConfig` : Enable the dynamic configuration of kubelet. The feature is no longer supported outside of supported skew policy. The feature gate was removed from kubelet in 1.24.

- `DynamicProvisioningScheduling` : Extend the default scheduler to be aware of volume topology and handle PV provisioning. This feature was superseded by the `VolumeScheduling` feature in v1.12.

- `DynamicVolumeProvisioning` : Enable the [dynamic provisioning](#) of persistent volumes to Pods.

- `EnableAggregatedDiscoveryTimeout` : Enable the five second timeout on aggregated discovery calls.

- `EnableEquivalenceClassCache` : Enable the scheduler to cache equivalence of nodes when scheduling Pods.

- `EndpointSlice` : Enables EndpointSlices for more scalable and extensible network endpoints. See [Enabling EndpointSlices](#).

- `EndpointSliceNodeName` : Enables EndpointSlice `nodeName` field.

- `EndpointSliceProxying` : When enabled, kube-proxy running on Linux will use EndpointSlices as the primary data source instead of Endpoints, enabling scalability and performance improvements. See [Enabling Endpoint Slices](#).

- `EndpointSliceTerminatingCondition` : Enables EndpointSlice `terminating` and `serving` condition fields.

- `EphemeralContainers` : Enable the ability to add ephemeral containers to running Pods.

- `EvenPodsSpread` : Enable pods to be scheduled evenly across topology domains. See [Pod Topology Spread Constraints](#).

- `ExpandCSIVolumes` : Enable the expanding of CSI volumes.

- `ExpandedDNSConfig` : Enable kubelet and kube-apiserver to allow more DNS search paths and longer list of DNS search paths. This feature requires container runtime support(Containerd: v1.5.6 or higher, CRI-O: v1.22 or higher). See [Expanded DNS Configuration](#).

- `ExpandInUsePersistentVolumes` : Enable expanding in-use PVCs. See [Resizing an in-use PersistentVolumeClaim](#).

- `ExpandPersistentVolumes` : Enable the expanding of persistent volumes. See [Expanding Persistent Volumes Claims](#).

- `ExperimentalCriticalPodAnnotation` : Enable annotating specific pods as *critical* so that their [scheduling is guaranteed](#). This feature is deprecated by Pod Priority and Preemption as of v1.13.

- `ExperimentalHostUserNamespaceDefaulting` : Enabling the defaulting user namespace to host. This is for containers that are using other host namespaces, host mounts, or containers that are privileged or using specific non-namespaced capabilities (e.g. `MKNODE` , `SYS_MODULE` etc.). This should only be enabled if user namespace remapping is enabled in the Docker daemon.

- `ExternalPolicyForExternalIP` : Fix a bug where ExternalTrafficPolicy is not applied to Service ExternalIPs.

- `GCERegionalPersistentDisk` : Enable the regional PD feature on GCE.

- `GenericEphemeralVolume` : Enables ephemeral, inline volumes that support all features of normal volumes (can be provided by third-party storage vendors, storage capacity tracking, restore from snapshot, etc.). See [Ephemeral Volumes](#).

- `GRPCContainerProbe` : Enables the gRPC probe method for {Liveness,Readiness,Startup}Probe. See [Configure Liveness, Readiness and Startup Probes](#).

- `HugePages` : Enable the allocation and consumption of pre-allocated [huge pages](#).

- `HugePageStorageMediumSize` : Enable support for multiple sizes pre-allocated [huge pages](#).

- `HyperVContainer` : Enable [Hyper-V isolation](#) for Windows containers.

- `IdentifyPodOS` : Allows the Pod OS field to be specified. This helps in identifying the OS of the pod authoritatively during the API server admission time.

- `ImmutableEphemeralVolumes` : Allows for marking individual Secrets and ConfigMaps as immutable for better safety and performance.

- `IndexedJob` : Allows the [Job](#) controller to manage Pod completions per completion index.

- `IngressClassNamespacedParams` : Allow namespace-scoped parameters reference in `IngressClass` resource. This feature adds two fields - `Scope` and `Namespace` to `IngressClass.spec.parameters` .

- `Initializers` : Allow asynchronous coordination of object creation using the Initializers admission plugin.

- `InTreePluginAWSUnregister` : Stops registering the aws-ebs in-tree plugin in kubelet and volume controllers.

- `InTreePluginAzureDiskUnregister` : Stops registering the azuredisk in-tree plugin in kubelet and volume controllers.

- `InTreePluginAzureFileUnregister` : Stops registering the azurefile in-tree plugin in kubelet and volume controllers.

- `InTreePluginGCEUnregister` : Stops registering the gce-pd in-tree plugin in kubelet and volume controllers.

- `InTreePluginOpenStackUnregister` : Stops registering the OpenStack cinder in-tree plugin in kubelet and volume controllers.

- `InTreePluginvSphereUnregister` : Stops registering the vSphere in-tree plugin in kubelet and volume controllers.

- `IPTablesOwnershipCleanup` : This causes kubelet to no longer create legacy iptables rules.

- `IPv6DualStack` : Enable [dual stack](#) support for IPv6.

- `JobMutableNodeSchedulingDirectives` : Allows updating node scheduling directives in the pod template of [Job](#).

- `JobTrackingWithFinalizers` : Enables tracking [Job](#) completions without relying on Pods remaining in the cluster indefinitely. The Job controller uses Pod finalizers and a field in the Job status to keep track of the finished Pods to count towards completion.

- `KubeletConfigFile` : Enable loading kubelet configuration from a file specified using a config file. See [setting kubelet parameters via a config file](#) for more details.

- `KubeletCredentialProviders` : Enable kubelet exec credential providers for image pull credentials.

- `KubeletPluginsWatcher` : Enable probe-based plugin watcher utility to enable kubelet to discover plugins such as [CSI volume drivers](#).

- `KubeletPodResources` : Enable the kubelet's pod resources gRPC endpoint. See [Support Device Monitoring](#) for more details.

- `KubeletPodResourcesGetAllocatable` : Enable the kubelet's pod resources `GetAllocatableResources` functionality. This API augments the [resource allocation reporting](#)

- `LegacyNodeRoleBehavior` : When disabled, legacy behavior in service load balancers and node disruption will ignore the `node-role.kubernetes.io/master` label in favor of the feature-specific labels provided by `NodeDisruptionExclusion` and `ServiceNodeExclusion` .

- `LegacyServiceAccountTokenNoAutoGeneration` : Stop auto-generation of Secret-based [service account tokens](#).

- `LegacyServiceAccountTokenTracking` : Track usage of Secret-based [service account tokens](#).

- `LocalStorageCapacityIsolation` : Enable the consumption of [local ephemeral storage](#) and also the `sizeLimit` property of an [emptyDir volume](#).

- `MinimizeIPTablesRestore` : Enables new performance improvement logics in the kube-proxy iptables mode.

- `MixedProtocolLBService` : Enable using different protocols in the same `LoadBalancer` type Service instance.

- `MountContainers` : Enable using utility containers on host as the volume mounter.

- `MountPropagation` : Enable sharing volume mounted by one container to other containers or pods. For more details, please see [mount propagation](#).

- `MultiCIDRRangeAllocator` : Enables the MultiCIDR range allocator.

- `NamespaceDefaultLabelName` : Configure the API Server to set an immutable label `kubernetes.io/metadata.name` on all namespaces,

containing the namespace name.

- `NetworkPolicyEndPort` : Allows you to define ports in a [NetworkPolicy](#) rule as a range of port numbers.

- `NetworkPolicyStatus` : Enable the `status` subresource for NetworkPolicy objects.

- `NodeDisruptionExclusion` : Enable use of the Node label `node.kubernetes.io/exclude-disruption` which prevents nodes from being evacuated during zone failures.

- `NodeLease` : Enable the new Lease API to report node heartbeats, which could be used as a node health signal.

- `NonPreemptingPriority` : Enable `preemptionPolicy` field for PriorityClass and Pod.

- `OpenAPIV3` : Enables the API server to publish OpenAPI v3.

- `PersistentLocalVolumes` : Enable the usage of `local` volume type in Pods. Pod affinity has to be specified if requesting a `local` volume.

- `PodAffinityNamespaceSelector` : Enable the [Pod Affinity Namespace Selector](#) and [CrossNamespacePodAffinity](#) quota scope features.

- `PodDisruptionBudget` : Enable the [PodDisruptionBudget](#) feature.

- `PodHasNetworkCondition` : Enable the kubelet to mark the [PodHasNetwork](#) condition on pods. This was renamed to `PodReadyToStartContainersCondition` in 1.28.

- `PodOverhead` : Enable the [PodOverhead](#) feature to account for pod overheads.

- `PodPriority` : Enable the descheduling and preemption of Pods based on their [priorities](#).

- `PodReadinessGates` : Enable the setting of `PodReadinessGate` field for extending Pod readiness evaluation. See [Pod readiness gate](#) for more details.

- `PodSecurity` : Enables the `PodSecurity` admission plugin.

- `PodShareProcessNamespace` : Enable the setting of `shareProcessNamespace` in a Pod for sharing a single process namespace between containers running in a pod. More details can be found in [Share Process Namespace between Containers in a Pod](#).

- `PreferNominatedNode` : This flag tells the scheduler whether the nominated nodes will be checked first before looping through all the other nodes in the cluster.

- `ProbeTerminationGracePeriod` : Enable [setting probe-level `terminationGracePeriodSeconds`](#) on pods. See the [enhancement proposal](#) for more details.

- `ProxyTerminatingEndpoints` : Enable the kube-proxy to handle terminating endpoints when `ExternalTrafficPolicy=Local` .

- `PVCProtection` : Enable the prevention of a PersistentVolumeClaim (PVC) from being deleted when it is still used by any Pod.

- `ReadOnlyAPIDataVolumes` :
  Set [`configMap`](#) , [`secret`](#) , [`downwardAPI`](#) and [`projected`](#) volumes to be mounted read-only.

  Since Kubernetes v1.10, these volume types are always read-only

and you cannot opt out.

- `ReadWriteOncePod` : Enables the usage of `ReadWriteOncePod` PersistentVolume access mode.

- `RemoveSelfLink` : Sets the `.metadata.selfLink` field to blank (empty string) for all objects and collections. This field has been deprecated since the Kubernetes v1.16 release. When this feature is enabled, the `.metadata.selfLink` field remains part of the Kubernetes API, but is always unset.

- `RequestManagement` : Enables managing request concurrency with prioritization and fairness at each API server. Deprecated by `APIPriorityAndFairness` since 1.17.

- `ResourceLimitsPriorityFunction` : Enable a scheduler priority function that assigns a lowest possible score of 1 to a node that satisfies at least one of the input Pod's cpu and memory limits. The intent is to break ties between nodes with same scores.

- `ResourceQuotaScopeSelectors` : Enable resource quota scope selectors.

- `RetroactiveDefaultStorageClass` : Allow assigning StorageClass to unbound PVCs retroactively.

- `RootCAConfigMap` : Configure the `kube-controller-manager` to publish a ConfigMap named `kube-root-ca.crt` to every namespace. This ConfigMap contains a CA bundle used for verifying connections to the kube-apiserver. See [Bound Service Account Tokens](#) for more details.

- `RotateKubeletClientCertificate` : Enable the rotation of the client TLS certificate on the kubelet. See [kubelet configuration](#) for more details.

- `RunAsGroup` : Enable control over the primary group ID set on the init processes of containers.

- `RuntimeClass` : Enable the [RuntimeClass](#) feature for selecting container runtime configurations.

- `ScheduleDaemonSetPods` : Enable DaemonSet Pods to be scheduled by the default scheduler instead of the DaemonSet controller.

- `SCTPSupport` : Enables the *SCTP* `protocol` value in Pod, Service, Endpoints, EndpointSlice, and NetworkPolicy definitions.

- `SeccompDefault` : Enables the use of `RuntimeDefault` as the default seccomp profile for all workloads. The seccomp profile is specified in the `securityContext` of a Pod and/or a Container.

- `SecurityContextDeny` : This gate signals that the `SecurityContextDeny` admission controller is deprecated.

- `SelectorIndex` : Allows label and field based indexes in API server watch cache to accelerate list operations.

- `ServiceAccountIssuerDiscovery` : Enable OIDC discovery endpoints (issuer and JWKS URLs) for the service account issuer in the API server. See [Configure Service Accounts for Pods](#) for more details.

- `ServiceAppProtocol` : Enables the `appProtocol` field on Services and Endpoints.

- `ServiceInternalTrafficPolicy` : Enables the `internalTrafficPolicy` field on Services

- `ServiceIPStaticSubrange` : Enables a strategy for Services ClusterIP allocations, whereby the ClusterIP range is subdivided. Dynamic allocated ClusterIP addresses will be allocated preferently from the upper range allowing users to assign static ClusterIPs from the lower range with a low risk of collision. See [Avoiding collisions](#) for more details.

- `ServiceLBNodePortControl` : Enables the `allocateLoadBalancerNodePorts` field on Services.

- `ServiceLoadBalancerClass` : Enables the `loadBalancerClass` field on Services. See [Specifying class of load balancer implementation](#) for more details.

- `ServiceLoadBalancerFinalizer` : Enable finalizer protection for Service load balancers.

- `ServiceNodeExclusion` : Enable the exclusion of nodes from load balancers created by a cloud provider. A node is eligible for exclusion if labelled with " `node.kubernetes.io/exclude-from-external-load-balancers` ".

- `ServiceNodePortStaticSubrange` : Enables the use of different port allocation strategies for NodePort Services. For more details, see [reserve NodePort ranges to avoid collisions](#).

- `ServiceTopology` : Enable service to route traffic based upon the Node topology of the cluster.

- `SetHostnameAsFQDN` : Enable the ability of setting Fully Qualified Domain Name(FQDN) as the hostname of a pod. See [Pod's `setHostnameAsFQDN` field](#).

- `StartupProbe` : Enable the [startup](#) probe in the kubelet.

- `StatefulSetMinReadySeconds` : Allows `minReadySeconds` to be respected by the StatefulSet controller.

- `StorageObjectInUseProtection` : Postpone the deletion of PersistentVolume or PersistentVolumeClaim objects if they are still being used.

- `StreamingProxyRedirects` : Instructs the API server to intercept (and follow) redirects from the backend (kubelet) for streaming requests. Examples of streaming requests include the `exec` , `attach` and `port-forward` requests.

- `SupportIPVSProxyMode` : Enable providing in-cluster service load balancing using IPVS. See [service proxies](#) for more details.

- `SupportNodePidsLimit` : Enable the support to limiting PIDs on the Node. The parameter `pid=<number>` in the `--system-reserved` and `--kube-reserved` options can be specified to ensure that the specified number of process IDs will be reserved for the system as a whole and for Kubernetes system daemons respectively.

- `SupportPodPidsLimit` : Enable the support to limiting PIDs in Pods.

- `SuspendJob` : Enable support to suspend and resume Jobs. For more details, see [the Jobs docs](#).

- `Sysctls` : Enable support for namespaced kernel parameters (sysctls) that can be set for each pod. See [sysctls](#) for more details.

- `TaintBasedEvictions` : Enable evicting pods from nodes based on taints on Nodes and tolerations on Pods. See [taints and tolerations](#) for more details.

- `TaintNodesByCondition` : Enable automatic tainting nodes based on [node conditions](#).

- `TokenRequest` : Enable the `TokenRequest` endpoint on service account resources.

- `TokenRequestProjection` : Enable the injection of service account tokens into a Pod through a `projected` [volume](#).

- `TopologyManager` : Enable a mechanism to coordinate fine-grained hardware resource assignments for different components in Kubernetes. See [Control Topology Management Policies on a node](#).

- `TTLAfterFinished` : Allow a [TTL controller](#) to clean up resources after they finish execution.

- `UserNamespacesStatelessPodsSupport` : Enable user namespace support for stateless Pods. This feature gate was superseded by the `UserNamespacesSupport` feature gate in the Kubernetes v1.28 release.

- `ValidateProxyRedirects` : This flag controls whether the API server should validate that redirects are only followed to the same host. Only used if the `StreamingProxyRedirects` flag is enabled.

- `VolumePVCDataSource` : Enable support for specifying an existing PVC as a DataSource.

- `VolumeScheduling` : Enable volume topology aware scheduling and make the PersistentVolumeClaim (PVC) binding aware of scheduling decisions. It also enables the usage of `local` volume type when used together with the `PersistentLocalVolumes` feature gate.

- `VolumeSnapshotDataSource` : Enable volume snapshot data source support.

- `VolumeSubpath` : Allow mounting a subpath of a volume in a container.

- `VolumeSubpathEnvExpansion` : Enable `subPathExpr` field for expanding environment variables into a `subPath` .

- `WarningHeaders` : Allow sending warning headers in API responses.

- `WindowsEndpointSliceProxying` : When enabled, kube-proxy running on Windows will use EndpointSlices as the primary data source instead of Endpoints, enabling scalability and performance improvements. See [Enabling Endpoint Slices](#).

- `WindowsGMSA` : Enables passing of GMSA credential specs from pods to container runtimes.

- `WindowsHostProcessContainers` : Enables support for Windows HostProcess containers.

- `WindowsRunAsUserName` : Enable support for running applications in Windows containers with as a non-default user. See [Configuring RunAsUserName](#) for more details.

12.3 - kubelet

Synopsis

The kubelet is the primary "node agent" that runs on each node. It can register the node with the apiserver using one of: the hostname; a flag to override the hostname; or specific logic for a cloud provider.

The kubelet works in terms of a PodSpec. A PodSpec is a YAML or JSON object that describes a pod. The kubelet takes a set of PodSpecs that are provided through various mechanisms (primarily through the apiserver) and ensures that the containers described in those PodSpecs are running and healthy. The kubelet doesn't manage containers which were not created by Kubernetes.

Other than from a PodSpec from the apiserver, there are two ways that a container manifest can be provided to the kubelet.

- File: Path passed as a flag on the command line. Files under this path will be monitored periodically for updates. The monitoring period is 20s by default and is configurable via a flag.
- HTTP endpoint: HTTP endpoint passed as a parameter on the command line. This endpoint is checked every 20 seconds (also configurable with a flag).

```
kubelet [flags]
```

Options

--address string   Default: 0.0.0.0

The IP address for the kubelet to serve on (set to `0.0.0.0` or `::` for listening on all interfaces and IP address families) (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--allowed-unsafe-sysctls strings

Comma-separated whitelist of unsafe sysctls or unsafe sysctl patterns (ending in `*`). Use these at your own risk. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--anonymous-auth   Default: true

Enables anonymous requests to the kubelet server. Requests that are not rejected by another authentication method are treated as anonymous requests. Anonymous requests have a username of `system:anonymous`, and a group name of `system:unauthenticated`. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--authentication-token-webhook

Use the `TokenReview` API to determine authentication for bearer tokens. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--authentication-token-webhook-cache-ttl duration   Default: `2m0s`

The duration to cache responses from the webhook token authenticator. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--authorization-mode string   Default: `AlwaysAllow`

Authorization mode for kubelet server. Valid options are " `AlwaysAllow` " or " `Webhook` ". Webhook mode uses the `SubjectAccessReview` API to determine authorization. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--authorization-webhook-cache-authorized-ttl duration   Default: `5m0s`

The duration to cache 'authorized' responses from the webhook authorizer. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--authorization-webhook-cache-unauthorized-ttl duration   Default: `30s`

The duration to cache 'unauthorized' responses from the webhook authorizer. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--bootstrap-kubeconfig string

Path to a kubeconfig file that will be used to get client certificate for kubelet. If the file specified by `--kubeconfig` does not exist, the bootstrap kubeconfig is used to request a client certificate from the API server. On success, a kubeconfig file referencing the generated client certificate and key is written to the path specified by `--kubeconfig`. The client certificate and key file will be stored in the directory pointed by `--cert-dir`.

--cert-dir string   Default: `/var/lib/kubelet/pki`

The directory where the TLS certs are located. If `--tls-cert-file` and `--tls-private-key-file` are provided, this flag will be ignored.

--cgroup-driver string   Default: `cgroupfs`

Driver that the kubelet uses to manipulate cgroups on the host. Possible values: " `cgroupfs` ", " `systemd` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cgroup-root string   Default: `''`

Optional root cgroup to use for pods. This is handled by the container runtime on a best effort basis. Default: '', which means use the container runtime default. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cgroups-per-qos   Default: `true`

Enable creation of QoS cgroup hierarchy, if true, top level QoS and pod cgroups are created. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--client-ca-file string

If set, any request presenting a client certificate signed by one of the authorities in the client-ca-file is authenticated with an identity corresponding to the `CommonName` of the client certificate. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cloud-config string

The path to the cloud provider configuration file. Empty string for no configuration file. (DEPRECATED: will be removed in 1.25 or later, in favor of removing cloud providers code from kubelet.)

--cloud-provider string

The provider for cloud services. Set to empty string for running with no cloud provider. Set to 'external' for running with an external cloud provider. If set, the cloud provider determines the name of the node (consult cloud provider documentation to determine if and how the hostname is used).

--cluster-dns strings

Comma-separated list of DNS server IP address. This value is used for containers DNS server in case of Pods with " `dnsPolicy: ClusterFirst` ".
Note: all DNS servers appearing in the list MUST serve the same set of records otherwise name resolution within the cluster may not work correctly. There is no guarantee as to which DNS server may be contacted for name resolution. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cluster-domain string

Domain for this cluster. If set, kubelet will configure all containers to search this domain in addition to the host's search domains. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--config string

The kubelet will load its initial configuration from this file. The path may be absolute or relative; relative paths start at the kubelet's current working directory. Omit this flag to use the built-in default configuration values. Command-line flags override configuration from this file.

--config-dir string   Default: ''

Path to a directory to specify drop-ins, allows the user to optionally specify additional configs to overwrite what is provided by default and in the `--config` flag.
Note: Set the ' `KUBELET_CONFIG_DROPIN_DIR_ALPHA` ' environment variable to specify the directory.

--container-log-max-files int32   Default: 5

<Warning: Beta feature> Set the maximum number of container log files that can be present for a container. The number must be >= 2. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--container-log-max-size string   Default: `10Mi`

<Warning: Beta feature> Set the maximum size (e.g. `10Mi`) of container log file before it is rotated. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--container-runtime-endpoint string   Default: `"unix:///run/containerd/`
`containerd.sock"`

The endpoint of remote runtime service. UNIX domain sockets are supported on Linux, while 'npipe' and 'tcp' endpoints are supported on windows. Examples: `'unix:///path/to/runtime.sock'` , `'npipe:////./pipe/runtime'` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--contention-profiling

Enable block profiling, if profiling is enabled. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cpu-cfs-quota   Default: `true`

Enable CPU CFS quota enforcement for containers that specify CPU limits. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cpu-cfs-quota-period duration   Default: `100ms`

Sets CPU CFS quota period value, `cpu.cfs_period_us` , defaults to Linux Kernel default. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cpu-manager-policy string   Default: `none`

The CPU manager policy to use. Possible values: " `none` ", " `static` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cpu-manager-policy-options string

A set of 'key=value' CPU manager policy options to use, to fine tune their behaviour. If not supplied, keep the default behaviour. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--cpu-manager-reconcile-period duration   Default: `10s`

<Warning: Alpha feature> CPU manager reconciliation period. Examples: " `10s` ", or " `1m` ". If not supplied, defaults to node status update frequency. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--enable-controller-attach-detach   Default: `true`

Enables the Attach/Detach controller to manage attachment/detachment of volumes scheduled to this node, and disables kubelet from executing any attach/detach operations. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--enable-debugging-handlers   Default: `true`

Enables server endpoints for log collection and local running of containers and commands. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--enable-server   Default: `true`

Enable the kubelet's server. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--enforce-node-allocatable strings   Default: `pods`

A comma separated list of levels of node allocatable enforcement to be enforced by kubelet. Acceptable options are " `none` ", " `pods` ", " `system-reserved` ", and " `kube-reserved` ". If the latter two options are specified, `--system-reserved-cgroup` and `--kube-reserved-cgroup` must also be set, respectively. If " `none` " is specified, no additional options should be set. See [official documentation](#) for more details. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--event-burst int32   Default: 100

Maximum size of a bursty event records, temporarily allows event records to burst to this number, while still not exceeding `--event-qps`. The number must be >= 0. If 0 will use default burst (100). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--event-qps int32   Default: 50

QPS to limit event creations. The number must be >= 0. If 0 will use default QPS (50). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-hard strings   Default:
 `imagefs.available<15%,memory.available<100Mi,nodefs.available<10%`

A set of eviction thresholds (e.g. " `memory.available<1Gi` ") that if met would trigger a pod eviction. On a Linux node, the default value also includes " `nodefs.inodesFree<5%` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-max-pod-grace-period int32

Maximum allowed grace period (in seconds) to use when terminating pods in response to a soft eviction threshold being met. If negative, defer to pod specified value. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-minimum-reclaim strings

A set of minimum reclaims (e.g. " `imagefs.available=2Gi` ") that describes the minimum amount of resource the kubelet will reclaim when performing a pod eviction if that resource is under pressure. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-pressure-transition-period duration   Default: `5m0s`

Duration for which the kubelet has to wait before transitioning out of an eviction pressure condition. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-soft strings

A set of eviction thresholds (e.g. " `memory.available<1.5Gi` ") that if met over a corresponding grace period would trigger a pod eviction. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--eviction-soft-grace-period strings

A set of eviction grace periods (e.g. " `memory.available=1m30s` ") that correspond to how long a soft eviction threshold must hold before triggering a pod eviction. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--exit-on-lock-contention

Whether kubelet should exit upon lock-file contention.

--experimental-allocatable-ignore-eviction   Default: `false`

When set to `true` , hard eviction thresholds will be ignored while calculating node allocatable. See [here](#) for more details. (DEPRECATED: will be removed in 1.25 or later)

--experimental-mounter-path string   Default: `mount`

[Experimental] Path of mounter binary. Leave empty to use the default `mount` . (DEPRECATED: will be removed in 1.24 or later, in favor of using CSI.)

--fail-swap-on   Default: `true`

Makes the kubelet fail to start if swap is enabled on the node. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--feature-gates <A list of 'key=true/false' pairs>

A set of `key=value` pairs that describe feature gates for alpha/experimental features. Options are:
APIResponseCompression=true|false (BETA - default=true)
APIServerIdentity=true|false (BETA - default=true)
APIServerTracing=true|false (BETA - default=true)
APIServingWithRoutine=true|false (BETA - default=true)
AllAlpha=true|false (ALPHA - default=false)
AllBeta=true|false (BETA - default=false)
AnyVolumeDataSource=true|false (BETA - default=true)
AppArmor=true|false (BETA - default=true)
AppArmorFields=true|false (BETA - default=true)
CPUManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
CPUManagerPolicyBetaOptions=true|false (BETA - default=true)
CPUManagerPolicyOptions=true|false (BETA - default=true)
CRDValidationRatcheting=true|false (BETA - default=true)
CSIMigrationPortworx=true|false (BETA - default=false)
CSIVolumeHealth=true|false (ALPHA - default=false)
CloudControllerManagerWebhook=true|false (ALPHA - default=false)
ClusterTrustBundle=true|false (ALPHA - default=false)
ClusterTrustBundleProjection=true|false (ALPHA - default=false)
ComponentSLIs=true|false (BETA - default=true)
ConsistentListFromCache=true|false (ALPHA - default=false)
ContainerCheckpoint=true|false (BETA - default=true)
ContextualLogging=true|false (BETA - default=true)
CronJobsScheduledAnnotation=true|false (BETA - default=true)
CrossNamespaceVolumeDataSource=true|false (ALPHA - default=false)
CustomCPUCFSQuotaPeriod=true|false (ALPHA - default=false)
CustomResourceFieldSelectors=true|false (ALPHA - default=false)
DevicePluginCDIDevices=true|false (BETA - default=true)
DisableCloudProviders=true|false (BETA - default=true)
DisableKubeletCloudCredentialProviders=true|false (BETA - default=true)
DisableNodeKubeProxyVersion=true|false (ALPHA - default=false)
DynamicResourceAllocation=true|false (ALPHA - default=false)
ElasticIndexedJob=true|false (BETA - default=true)
EventedPLEG=true|false (ALPHA - default=false)
GracefulNodeShutdown=true|false (BETA - default=true)
GracefulNodeShutdownBasedOnPodPriority=true|false (BETA - default=true)
HPAScaleToZero=true|false (ALPHA - default=false)
HonorPVReclaimPolicy=true|false (ALPHA - default=false)
ImageMaximumGCAge=true|false (BETA - default=true)
InPlacePodVerticalScaling=true|false (ALPHA - default=false)
InTreePluginAWSUnregister=true|false (ALPHA - default=false)
InTreePluginAzureDiskUnregister=true|false (ALPHA - default=false)
InTreePluginAzureFileUnregister=true|false (ALPHA - default=false)
InTreePluginGCEUnregister=true|false (ALPHA - default=false)
InTreePluginOpenStackUnregister=true|false (ALPHA - default=false)
InTreePluginPortworxUnregister=true|false (ALPHA - default=false)
InTreePluginvSphereUnregister=true|false (ALPHA - default=false)
InformerResourceVersion=true|false (ALPHA - default=false)
JobBackoffLimitPerIndex=true|false (BETA - default=true)
JobManagedBy=true|false (ALPHA - default=false)
JobPodFailurePolicy=true|false (BETA - default=true)
JobPodReplacementPolicy=true|false (BETA - default=true)
JobSuccessPolicy=true|false (ALPHA - default=false)
KubeProxyDrainingTerminatingNodes=true|false (BETA - default=true)
KubeletCgroupDriverFromCRI=true|false (ALPHA - default=false)
KubeletInUserNamespace=true|false (ALPHA - default=false)
KubeletPodResourcesDynamicResources=true|false (ALPHA - default=false)
KubeletPodResourcesGet=true|false (ALPHA - default=false)
KubeletSeparateDiskGC=true|false (ALPHA - default=false)
KubeletTracing=true|false (BETA - default=true)
LoadBalancerIPMode=true|false (BETA - default=true)
LocalStorageCapacityIsolationFSQuotaMonitoring=true|false (ALPHA - default=false)
LogarithmicScaleDown=true|false (BETA - default=true)
LoggingAlphaOptions=true|false (ALPHA - default=false)
LoggingBetaOptions=true|false (BETA - default=true)
MatchLabelKeysInPodAffinity=true|false (ALPHA - default=false)
MatchLabelKeysInPodTopologySpread=true|false (BETA - default=true)
MaxUnavailableStatefulSet=true|false (ALPHA - default=false)
MemoryManager=true|false (BETA - default=true)
MemoryQoS=true|false (ALPHA - default=false)

Reference | Kubernetes   https://kubernetes.io/docs/reference/_print/

MultiCIDRServiceAllocator=true|false (ALPHA - default=false)
MutatingAdmissionPolicy=true|false (ALPHA - default=false)
NFTablesProxyMode=true|false (ALPHA - default=false)
NodeInclusionPolicyInPodTopologySpread=true|false (BETA - default=true)
NodeLogQuery=true|false (BETA - default=false)
NodeSwap=true|false (BETA - default=true)
OpenAPIEnums=true|false (BETA - default=true)
PDBUnhealthyPodEvictionPolicy=true|false (BETA - default=true)
PersistentVolumeLastPhaseTransitionTime=true|false (BETA - default=true)
PodAndContainerStatsFromCRI=true|false (ALPHA - default=false)
PodDeletionCost=true|false (BETA - default=true)
PodDisruptionConditions=true|false (BETA - default=true)
PodIndexLabel=true|false (BETA - default=true)
PodLifecycleSleepAction=true|false (BETA - default=true)
PodReadyToStartContainersCondition=true|false (BETA - default=true)
PortForwardWebsockets=true|false (ALPHA - default=false)
ProcMountType=true|false (ALPHA - default=false)
QOSReserved=true|false (ALPHA - default=false)
RecoverVolumeExpansionFailure=true|false (ALPHA - default=false)
RecursiveReadOnlyMounts=true|false (ALPHA - default=false)
RelaxedEnvironmentVariableValidation=true|false (ALPHA - default=false)
RetryGenerateName=true|false (ALPHA - default=false)
RotateKubeletServerCertificate=true|false (BETA - default=true)
RuntimeClassInImageCriApi=true|false (ALPHA - default=false)
SELinuxMount=true|false (ALPHA - default=false)
SELinuxMountReadWriteOncePod=true|false (BETA - default=true)
SchedulerQueueingHints=true|false (BETA - default=false)
SeparateCacheWatchRPC=true|false (BETA - default=true)
SeparateTaintEvictionController=true|false (BETA - default=true)
ServiceAccountTokenJTI=true|false (BETA - default=true)
ServiceAccountTokenNodeBinding=true|false (ALPHA - default=false)
ServiceAccountTokenNodeBindingValidation=true|false (BETA - default=true)
ServiceAccountTokenPodNodeInfo=true|false (BETA - default=true)
ServiceTrafficDistribution=true|false (ALPHA - default=false)
SidecarContainers=true|false (BETA - default=true)
SizeMemoryBackedVolumes=true|false (BETA - default=true)
StatefulSetAutoDeletePVC=true|false (BETA - default=true)
StatefulSetStartOrdinal=true|false (BETA - default=true)
StorageNamespaceIndex=true|false (BETA - default=true)
StorageVersionAPI=true|false (ALPHA - default=false)
StorageVersionHash=true|false (BETA - default=true)
StorageVersionMigrator=true|false (ALPHA - default=false)
StructuredAuthenticationConfiguration=true|false (BETA - default=true)
StructuredAuthorizationConfiguration=true|false (BETA - default=true)
TopologyAwareHints=true|false (BETA - default=true)
TopologyManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
TopologyManagerPolicyBetaOptions=true|false (BETA - default=true)
TopologyManagerPolicyOptions=true|false (BETA - default=true)
TranslateStreamCloseWebsocketRequests=true|false (BETA - default=true)
UnauthenticatedHTTP2DOSMitigation=true|false (BETA - default=true)
UnknownVersionInteroperabilityProxy=true|false (ALPHA - default=false)
UserNamespacesPodSecurityStandards=true|false (ALPHA - default=false)
UserNamespacesSupport=true|false (BETA - default=false)
VolumeAttributesClass=true|false (ALPHA - default=false)
VolumeCapacityPriority=true|false (ALPHA - default=false)
WatchFromStorageWithoutResourceVersion=true|false (BETA - default=false)
WatchList=true|false (ALPHA - default=false)
WatchListClient=true|false (BETA - default=false)
WinDSR=true|false (ALPHA - default=false)
WinOverlay=true|false (BETA - default=true)
WindowsHostNetwork=true|false (ALPHA - default=true)
(DEPRECATED: This parameter should be set via the config file specified by the
kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--file-check-frequency duration   Default: `20s`

Duration between checking config files for new data. (DEPRECATED: This parameter
should be set via the config file specified by the kubelet's `--config` flag. See
[kubelet-config-file](#) for more information.)

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--hairpin-mode string   Default: `promiscuous-bridge`

How should the kubelet setup hairpin NAT. This allows endpoints of a Service to load balance back to themselves if they should try to access their own Service. Valid values are " `promiscuous-bridge` ", " `hairpin-veth` " and " `none` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--healthz-bind-address string   Default: `127.0.0.1`

The IP address for the healthz server to serve on (set to " `0.0.0.0` " or " `::` " for listening in all interfaces and IP families). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--healthz-port int32   Default: 10248

The port of the localhost healthz endpoint (set to `0` to disable). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

-h, --help

help for kubelet

--hostname-override string

If non-empty, will use this string as identification instead of the actual hostname. If `--cloud-provider` is set, the cloud provider determines the name of the node (consult cloud provider documentation to determine if and how the hostname is used).

--http-check-frequency duration   Default: `20s`

Duration between checking HTTP for new data. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--image-credential-provider-bin-dir string

The path to the directory where credential provider plugin binaries are located.

--image-credential-provider-config string

The path to the credential provider plugin config file.

--image-gc-high-threshold int32   Default: 85

The percent of disk usage after which image garbage collection is always run. Values must be within the range [0, 100], To disable image garbage collection, set to 100. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--image-gc-low-threshold int32   Default: 80

The percent of disk usage before which image garbage collection is never run. Lowest disk usage to garbage collect to. Values must be within the range [0, 100] and should not be larger than that of `--image-gc-high-threshold` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--image-service-endpoint string

The endpoint of remote image service. If not specified, it will be the same with `--container-runtime-endpoint` by default. UNIX domain socket are supported on Linux, while `npipe` and `tcp` endpoints are supported on Windows. Examples: `unix:///path/to/runtime.sock` , `npipe:////./pipe/runtime` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--keep-terminated-pod-volumes

Keep terminated pod volumes mounted to the node after the pod terminates. Can be useful for debugging volume related issues. (DEPRECATED: will be removed in a future version)

--kernel-memcg-notification

If enabled, the kubelet will integrate with the kernel memcg notification to determine if memory eviction thresholds are crossed rather than polling. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kube-api-burst int32   Default: 100

Burst to use while talking with kubernetes API server. The number must be >= 0. If 0 will use default burst (100). Doesn't cover events and node heartbeat apis which rate limiting is controlled by a different set of flags. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kube-api-content-type string   Default: `application/vnd.kubernetes.protobuf`

Content type of requests sent to apiserver. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kube-api-qps int32   Default: 50

QPS to use while talking with kubernetes API server. The number must be >= 0. If 0 will use default QPS (50). Doesn't cover events and node heartbeat apis which rate limiting is controlled by a different set of flags. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kube-reserved strings   Default: <None>

A set of `<resource name>=<resource quantity>` (e.g. " `cpu=200m,memory=500Mi,ephemeral-storage=1Gi,pid='100'` ") pairs that describe resources reserved for kubernetes system components. Currently `cpu` , `memory` and local `ephemeral-storage` for root file system are supported. See [here](#) for more detail. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kube-reserved-cgroup string   Default: `''`

Absolute name of the top level cgroup that is used to manage kubernetes components for which compute resources were reserved via `--kube-reserved` flag. Ex. " `/kube-reserved` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--kubeconfig string

Path to a kubeconfig file, specifying how to connect to the API server. Providing `--kubeconfig` enables API server mode, omitting `--kubeconfig` enables standalone mode.

--kubelet-cgroups string

Optional absolute name of cgroups to create and run the kubelet in. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--local-storage-capacity-isolation>   Default: `true`

If true, local ephemeral storage isolation is enabled. Otherwise, local storage isolation feature will be disabled. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--lock-file string

<Warning: Alpha feature> The path to file for kubelet to use as a lock file.

--log-flush-frequency duration   Default: `5s`

Maximum number of seconds between log flushes.

--log-json-info-buffer-size string   Default: `'0'`

[Alpha] In JSON format with split output streams, the info messages can be buffered for a while to increase performance. The default value of zero bytes disables buffering. The size can be specified as number of bytes (512), multiples of 1000 (1K), multiples of 1024 (2Ki), or powers of those (3M, 4G, 5Mi, 6Gi). Enable the `LoggingAlphaOptions` feature gate to use this. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--log-json-split-stream

[Alpha] In JSON format, write error messages to stderr and info messages to stdout. The default is to write a single stream to stdout. Enable the `LoggingAlphaOptions` feature gate to use this. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--log-text-info-buffer-size string   Default: `'0'`

[Alpha] In text format with split output streams, the info messages can be buffered for a while to increase performance. The default value of zero bytes disables buffering. The size can be specified as number of bytes (512), multiples of 1000 (1K), multiples of 1024 (2Ki), or powers of those (3M, 4G, 5Mi, 6Gi). Enable the `LoggingAlphaOptions` feature gate to use this. (DEPRECATED: This parameter should be set via the config file specified by the Kubelet's `--config` flag. See https://kubernetes.io/docs/tasks/administer-cluster/kubelet-config-file/ for more information.)

--log-text-split-stream

[Alpha] In text format, write error messages to stderr and info messages to stdout. The default is to write a single stream to stdout. Enable the `LoggingAlphaOptions` feature gate to use this. (DEPRECATED: This parameter should be set via the config file specified by the Kubelet's `--config` flag. See https://kubernetes.io/docs/tasks/administer-cluster/kubelet-config-file/ for more information.)

--logging-format string   Default: `text`

Sets the log format. Permitted formats: "`json`" (gated by `LoggingBetaOptions`, "`text`"). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--make-iptables-util-chains   Default: `true`

If true, kubelet will ensure `iptables` utility rules are present on host. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--manifest-url string

URL for accessing additional Pod specifications to run. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--manifest-url-header strings

Comma-separated list of HTTP headers to use when accessing the URL provided to `--manifest-url`. Multiple headers with the same name will be added in the same order provided. This flag can be repeatedly invoked. For example: `--manifest-url-header 'a:hello,b:again,c:world' --manifest-url-header 'b:beautiful'` (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--max-open-files int   Default: 1000000

Number of files that can be opened by kubelet process. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--max-pods int32   Default: 110

Number of Pods that can run on this kubelet. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--maximum-dead-containers int32   Default: -1

Maximum number of old instances of containers to retain globally. Each container takes up some disk space. To disable, set to a negative number. (DEPRECATED: Use `--eviction-hard` or `--eviction-soft` instead. Will be removed in a future version.)

--maximum-dead-containers-per-container int32   Default: 1

Maximum number of old instances to retain per container. Each container takes up some disk space. (DEPRECATED: Use `--eviction-hard` or `--eviction-soft` instead. Will be removed in a future version.)

--memory-manager-policy string   Default: `None`

Memory Manager policy to use. Possible values: "`None`", "`Static`". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--minimum-container-ttl-duration duration

Minimum age for a finished container before it is garbage collected. Examples: "`300ms`", "`10s`" or "`2h45m`". (DEPRECATED: Use `--eviction-hard` or `--eviction-soft` instead. Will be removed in a future version.)

--minimum-image-ttl-duration duration   Default: `2m0s`

Minimum age for an unused image before it is garbage collected. Examples: "`300ms`", "`10s`" or "`2h45m`". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--node-ip string

IP address (or comma-separated dual-stack IP addresses) of the node. If unset, kubelet will use the node's default IPv4 address, if any, or its default IPv6 address if it has no IPv4 addresses. You can pass " `::` " to make it prefer the default IPv6 address rather than the default IPv4 address.

--node-labels <key=value pairs>

<Warning: Alpha feature>Labels to add when registering the node in the cluster. Labels must be `key=value` pairs separated by `','` . Labels in the `'kubernetes.io'` namespace must begin with an allowed prefix (`'kubelet.kubernetes.io'` , `'node.kubernetes.io'`) or be in the specifically allowed set (`'beta.kubernetes.io/arch'` , `'beta.kubernetes.io/instance-type'` , `'beta.kubernetes.io/os'` , `'failure-domain.beta.kubernetes.io/region'` , `'failure-domain.beta.kubernetes.io/zone'` , `'kubernetes.io/arch'` , `'kubernetes.io/hostname'` , `'kubernetes.io/os'` , `'node.kubernetes.io/instance-type'` , `'topology.kubernetes.io/region'` , `'topology.kubernetes.io/zone'`)

--node-status-max-images int32   Default: 50

The maximum number of images to report in `node.status.images` . If `-1` is specified, no cap will be applied. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--node-status-update-frequency duration   Default: `10s`

Specifies how often kubelet posts node status to master. **Note**: be cautious when changing the constant, it must work with `nodeMonitorGracePeriod` in Node controller. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--oom-score-adj int32   Default: -999

The `oom-score-adj` value for kubelet process. Values must be within the range [-1000, 1000]. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--pod-cidr string

The CIDR to use for pod IP addresses, only used in standalone mode. In cluster mode, this is obtained from the master. For IPv6, the maximum number of IP's allocated is 65536 (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--pod-infra-container-image string   Default: `registry.k8s.io/pause:3.9`

Specified image will not be pruned by the image garbage collector. CRI implementations have their own configuration to set this image. (DEPRECATED: will be removed in 1.27. Image garbage collector will get sandbox image information from CRI.)

--pod-manifest-path string

Path to the directory containing static pod files to run, or the path to a single static pod file. Files starting with dots will be ignored. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--pod-max-pids int   Default: -1

Set the maximum number of processes per pod. If `-1`, the kubelet defaults to the node allocatable PID capacity. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--pods-per-core int32

Number of Pods per core that can run on this kubelet. The total number of pods on this kubelet cannot exceed `--max-pods`, so `--max-pods` will be used if this calculation results in a larger number of pods allowed on the kubelet. A value of `0` disables this limit. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--port int32   Default: 10250

The port for the kubelet to serve on. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--protect-kernel-defaults

Default kubelet behaviour for kernel tuning. If set, kubelet errors if any of kernel tunables is different than kubelet defaults. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--provider-id string

Unique identifier for identifying the node in a machine database, i.e cloud provider.

--qos-reserved string

<Warning: Alpha feature> A set of `<resource name>=<percentage>` (e.g. "`memory=50%`") pairs that describe how pod resource requests are reserved at the QoS level. Currently only `memory` is supported. Requires the `QOSReserved` feature gate to be enabled. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--read-only-port int32   Default: 10255

The read-only port for the kubelet to serve on with no authentication/authorization (set to `0` to disable). (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--register-node   Default: `true`

Register the node with the API server. If `--kubeconfig` is not provided, this flag is irrelevant, as the kubelet won't have an API server to register with. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--register-schedulable   Default: `true`

Register the node as schedulable. Won't have any effect if `--register-node` is `false`. (DEPRECATED: will be removed in a future version)

--register-with-taints string

Register the node with the given list of taints (comma separated `<key>=<value>:<effect>`). No-op if `--register-node` is `false` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--registry-burst int32   Default: 10

Maximum size of a bursty pulls, temporarily allows pulls to burst to this number, while still not exceeding `--registry-qps` . Only used if `--registry-qps` is greater than 0. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--registry-qps int32   Default: 5

If > 0, limit registry pull QPS to this value. If `0` , unlimited. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--reserved-cpus string

A comma-separated list of CPUs or CPU ranges that are reserved for system and kubernetes usage. This specific list will supersede cpu counts in `--system-reserved` and `--kube-reserved` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--reserved-memory string

A comma-separated list of memory reservations for NUMA nodes. (e.g. " `--reserved-memory 0:memory=1Gi,hugepages-1M=2Gi --reserved-memory 1:memory=2Gi` "). The total sum for each memory type should be equal to the sum of `--kube-reserved` , `--system-reserved` and `--eviction-threshold` . See [here](#) for more details. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--resolv-conf string   Default: `/etc/resolv.conf`

Resolver configuration file used as the basis for the container DNS resolution configuration. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--root-dir string   Default: `/var/lib/kubelet`

Directory path for managing kubelet files (volume mounts, etc).

--rotate-certificates

Auto rotate the kubelet client certificates by requesting new certificates from the `kube-apiserver` when the certificate expiration approaches. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--rotate-server-certificates

Auto-request and rotate the kubelet serving certificates by requesting new certificates from the `kube-apiserver` when the certificate expiration approaches. Requires the `RotateKubeletServerCertificate` feature gate to be enabled, and approval of the submitted `CertificateSigningRequest` objects. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--runonce

If `true` , exit after spawning pods from local manifests or remote urls. Exclusive with `--enable-server` (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--runtime-cgroups string

Optional absolute name of cgroups to create and run the runtime in.

--runtime-request-timeout duration   Default: `2m0s`

Timeout of all runtime requests except long running request - `pull` , `logs` , `exec` and `attach` . When timeout exceeded, kubelet will cancel the request, throw out an error and retry later. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--seccomp-default

Enable the use of `RuntimeDefault` as the default seccomp profile for all workloads.

--serialize-image-pulls   Default: `true`

Pull images one at a time. We recommend *not* changing the default value on nodes that run docker daemon with version < 1.9 or an `aufs` storage backend. Issue #10959 has more details. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--streaming-connection-idle-timeout duration   Default: `4h0m0s`

Maximum time a streaming connection can be idle before the connection is automatically closed. `0` indicates no timeout. Example: `5m` . Note: All connections to the kubelet server have a maximum duration of 4 hours. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--sync-frequency duration   Default: `1m0s`

Max period between synchronizing running containers and config. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--system-cgroups string

Optional absolute name of cgroups in which to place all non-kernel processes that are not already inside a cgroup under `'/'` . Empty for no container. Rolling back the flag requires a reboot. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--system-reserved string   Default: <none>

A set of `<resource name>=<resource quantity>` (e.g. `" cpu=200m,memory=500Mi,ephemeral-storage=1Gi,pid='100' ")` pairs that describe resources reserved for non-kubernetes components. Currently only `cpu` and `memory` and local ephemeral storage for root file system are supported. See [here](#) for more detail. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--system-reserved-cgroup string   Default: `''`

Absolute name of the top level cgroup that is used to manage non-kubernetes components for which compute resources were reserved via `--system-reserved` flag. Ex. `/system-reserved` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--tls-cert-file string

File containing x509 certificate used for serving HTTPS (with intermediate certs, if any, concatenated after server cert). If `--tls-cert-file` and `--tls-private-key-file` are not provided, a self-signed certificate and key are generated for the public address and saved to the directory passed to `--cert-dir` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--tls-cipher-suites string

Comma-separated list of cipher suites for the server. If omitted, the default Go cipher suites will be used.
Preferred values: `TLS_AES_128_GCM_SHA256` , `TLS_AES_256_GCM_SHA384` , `TLS_CHACHA20_POLY1305_SHA256` , `TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA` , `TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256` , `TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA` , `TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384` , `TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305` , `TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256` , `TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA` , `TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256` , `TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA` , `TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384` , `TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305` , `TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256` , `TLS_RSA_WITH_AES_128_CBC_SHA` , `TLS_RSA_WITH_AES_128_GCM_SHA256` , `TLS_RSA_WITH_AES_256_CBC_SHA` , `TLS_RSA_WITH_AES_256_GCM_SHA384`
Insecure values: `TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256` , `TLS_ECDHE_ECDSA_WITH_RC4_128_SHA` , `TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA` , `TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256` , `TLS_ECDHE_RSA_WITH_RC4_128_SHA` , `TLS_RSA_WITH_3DES_EDE_CBC_SHA` , `TLS_RSA_WITH_AES_128_CBC_SHA256` , `TLS_RSA_WITH_RC4_128_SHA` .
(DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--tls-min-version string

Minimum TLS version supported. Possible values: " `VersionTLS10` ", " `VersionTLS11` ", " `VersionTLS12` ", " `VersionTLS13` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--tls-private-key-file string

File containing x509 private key matching `--tls-cert-file` . (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--topology-manager-policy string   Default: `'none'`

Topology Manager policy to use. Possible values: " `none` ", " `best-effort` ", " `restricted` ", " `single-numa-node` ". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--topology-manager-policy-options string

A set of <key>=<value> topology manager policy options to use, to fine tune their behaviour. If not supplied, keep the default behaviour. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--topology-manager-scope string   Default: `container`

Scope to which topology hints are applied. Topology manager collects hints from hint providers and applies them to the defined scope to ensure the pod admission. Possible values: "`container`", "`pod`". (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

-v, --v Level

Number for the log level verbosity

--version version[=true]

Print version information and quit; `--version=vX.Y.Z...` sets the reported version.

--vmodule <A list of 'pattern=N' strings>

Comma-separated list of `pattern=N` settings for file-filtered logging (only works for text log format).

--volume-plugin-dir string   Default: `/usr/libexec/kubernetes/kubelet-plugins/`
`volume/exec/`

The full path of the directory in which to search for additional third party volume plugins. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

--volume-stats-agg-period duration   Default: `1m0s`

Specifies interval for kubelet to calculate and cache the volume disk usage for all pods and volumes. To disable volume calculations, set to a negative number. (DEPRECATED: This parameter should be set via the config file specified by the kubelet's `--config` flag. See [kubelet-config-file](#) for more information.)

12.4 - kube-apiserver

Synopsis

The Kubernetes API server validates and configures data for the api objects which include pods, services, replicationcontrollers, and others. The API Server services REST operations and provides the frontend to the cluster's shared state through which all other components interact.

```
kube-apiserver [flags]
```

Options

--admission-control-config-file string

File with admission control configuration.

--advertise-address string

The IP address on which to advertise the apiserver to members of the cluster. This address must be reachable by the rest of the cluster. If blank, the --bind-address will be used. If --bind-address is unspecified, the host's default interface will be used.

--aggregator-reject-forwarding-redirect   Default: true

Aggregator reject forwarding redirect response back to client.

--allow-metric-labels stringToString   Default: []

The map from metric-label to value allow-list of this label. The key's format is <MetricName>,<LabelName>. The value's format is <allowed_value>,<allowed_value>...e.g. metric1,label1='v1,v2,v3', metric1,label2='v1,v2,v3' metric2,label1='v1,v2,v3'.

--allow-metric-labels-manifest string

The path to the manifest file that contains the allow-list mapping. The format of the file is the same as the flag --allow-metric-labels. Note that the flag --allow-metric-labels will override the manifest file.

--allow-privileged

If true, allow privileged containers. [default=false]

--anonymous-auth   Default: true

Enables anonymous requests to the secure port of the API server. Requests that are not rejected by another authentication method are treated as anonymous requests. Anonymous requests have a username of system:anonymous, and a group name of system:unauthenticated.

--api-audiences strings

Identifiers of the API. The service account token authenticator will validate that tokens used against the API are bound to at least one of these audiences. If the --service-account-issuer flag is configured and this flag is not, this field defaults to a single element list containing the issuer URL.

--audit-log-batch-buffer-size int   Default: 10000

The size of the buffer to store events before batching and writing. Only used in batch mode.

--audit-log-batch-max-size int   Default: 1

The maximum size of a batch. Only used in batch mode.

--audit-log-batch-max-wait duration

The amount of time to wait before force writing the batch that hadn't reached the max size. Only used in batch mode.

--audit-log-batch-throttle-burst int

Maximum number of requests sent at the same moment if ThrottleQPS was not utilized before. Only used in batch mode.

--audit-log-batch-throttle-enable

Whether batching throttling is enabled. Only used in batch mode.

--audit-log-batch-throttle-qps float

Maximum average number of batches per second. Only used in batch mode.

--audit-log-compress

If set, the rotated log files will be compressed using gzip.

--audit-log-format string   Default: "json"

Format of saved audits. "legacy" indicates 1-line text format for each event. "json" indicates structured json format. Known formats are legacy,json.

--audit-log-maxage int

The maximum number of days to retain old audit log files based on the timestamp encoded in their filename.

--audit-log-maxbackup int

The maximum number of old audit log files to retain. Setting a value of 0 will mean there's no restriction on the number of files.

--audit-log-maxsize int

The maximum size in megabytes of the audit log file before it gets rotated.

--audit-log-mode string   Default: "blocking"

Strategy for sending audit events. Blocking indicates sending events should block server responses. Batch causes the backend to buffer and write events asynchronously. Known modes are batch,blocking,blocking-strict.

--audit-log-path string

If set, all requests coming to the apiserver will be logged to this file. '-' means standard out.

--audit-log-truncate-enabled

Whether event and batch truncating is enabled.

--audit-log-truncate-max-batch-size int   Default: 10485760

Maximum size of the batch sent to the underlying backend. Actual serialized size can be several hundreds of bytes greater. If a batch exceeds this limit, it is split into several batches of smaller size.

--audit-log-truncate-max-event-size int   Default: 102400

Maximum size of the audit event sent to the underlying backend. If the size of an event is greater than this number, first request and response are removed, and if this doesn't reduce the size enough, event is discarded.

--audit-log-version string   Default: "audit.k8s.io/v1"

API group and version used for serializing audit events written to log.

--audit-policy-file string

Path to the file that defines the audit policy configuration.

--audit-webhook-batch-buffer-size int   Default: 10000

The size of the buffer to store events before batching and writing. Only used in batch mode.

--audit-webhook-batch-max-size int   Default: 400

The maximum size of a batch. Only used in batch mode.

--audit-webhook-batch-max-wait duration   Default: 30s

The amount of time to wait before force writing the batch that hadn't reached the max size. Only used in batch mode.

--audit-webhook-batch-throttle-burst int   Default: 15

Maximum number of requests sent at the same moment if ThrottleQPS was not utilized before. Only used in batch mode.

--audit-webhook-batch-throttle-enable   Default: true

Whether batching throttling is enabled. Only used in batch mode.

--audit-webhook-batch-throttle-qps float   Default: 10

Maximum average number of batches per second. Only used in batch mode.

--audit-webhook-config-file string

Path to a kubeconfig formatted file that defines the audit webhook configuration.

--audit-webhook-initial-backoff duration   Default: 10s

The amount of time to wait before retrying the first failed request.

--audit-webhook-mode string   Default: "batch"

Strategy for sending audit events. Blocking indicates sending events should block
server responses. Batch causes the backend to buffer and write events
asynchronously. Known modes are batch,blocking,blocking-strict.

--audit-webhook-truncate-enabled

Whether event and batch truncating is enabled.

--audit-webhook-truncate-max-batch-size int   Default: 10485760

Maximum size of the batch sent to the underlying backend. Actual serialized size can
be several hundreds of bytes greater. If a batch exceeds this limit, it is split into
several batches of smaller size.

--audit-webhook-truncate-max-event-size int   Default: 102400

Maximum size of the audit event sent to the underlying backend. If the size of an
event is greater than this number, first request and response are removed, and if this
doesn't reduce the size enough, event is discarded.

--audit-webhook-version string   Default: "audit.k8s.io/v1"

API group and version used for serializing audit events written to webhook.

--authentication-config string

File with Authentication Configuration to configure the JWT Token authenticator or
the anonymous authenticator. Note: This feature is in Alpha since v1.29.--feature-
gate=StructuredAuthenticationConfiguration=true needs to be set for enabling this
feature.This feature is mutually exclusive with the oidc-* flags.To configure
anonymous authenticator you need to enable --feature-
gate=AnonymousAuthConfigurableEndpoints.When you configure anonymous
authenticator in the authentication config you cannot use the --anonymous-auth flag.

--authentication-token-webhook-cache-ttl duration   Default: 2m0s

The duration to cache responses from the webhook token authenticator.

--authentication-token-webhook-config-file string

File with webhook configuration for token authentication in kubeconfig format. The API server will query the remote service to determine authentication for bearer tokens.

--authentication-token-webhook-version string   Default: "v1beta1"

The API version of the authentication.k8s.io TokenReview to send to and expect from the webhook.

--authorization-config string

File with Authorization Configuration to configure the authorizer chain.Note: This feature is in Alpha since v1.29.--feature-gate=StructuredAuthorizationConfiguration=true feature flag needs to be set to true for enabling the functionality.This feature is mutually exclusive with the other --authorization-mode and --authorization-webhook-* flags.

--authorization-mode strings

Ordered list of plug-ins to do authorization on secure port. Defaults to AlwaysAllow if --authorization-config is not used. Comma-delimited list of: AlwaysAllow,AlwaysDeny,ABAC,Webhook,RBAC,Node.

--authorization-policy-file string

File with authorization policy in json line by line format, used with --authorization-mode=ABAC, on the secure port.

--authorization-webhook-cache-authorized-ttl duration   Default: 5m0s

---

The duration to cache 'authorized' responses from the webhook authorizer.

--authorization-webhook-cache-unauthorized-ttl duration   Default: 30s

---

The duration to cache 'unauthorized' responses from the webhook authorizer.

--authorization-webhook-config-file string

File with webhook configuration in kubeconfig format, used with --authorization-mode=Webhook. The API server will query the remote service to determine access on the API server's secure port.

--authorization-webhook-version string   Default: "v1beta1"

The API version of the authorization.k8s.io SubjectAccessReview to send to and expect from the webhook.

--bind-address string   Default: 0.0.0.0

The IP address on which to listen for the --secure-port port. The associated interface(s) must be reachable by the rest of the cluster, and by CLI/web clients. If blank or an unspecified address (0.0.0.0 or ::), all interfaces and IP address families will be used.

--cert-dir string   Default: "/var/run/kubernetes"

The directory where the TLS certs are located. If --tls-cert-file and --tls-private-key-file are provided, this flag will be ignored.

--client-ca-file string

If set, any request presenting a client certificate signed by one of the authorities in the client-ca-file is authenticated with an identity corresponding to the CommonName of the client certificate.

--contention-profiling

Enable block profiling, if profiling is enabled

--cors-allowed-origins strings

List of allowed origins for CORS, comma separated. An allowed origin can be a regular expression to support subdomain matching. If this list is empty CORS will not be enabled. Please ensure each expression matches the entire hostname by anchoring to the start with '^' or including the '//' prefix, and by anchoring to the end with '$' or including the ':' port separator suffix. Examples of valid expressions are '//example.com(:|$)' and '^https://example.com(:|$)'

--debug-socket-path string

Use an unprotected (no authn/authz) unix-domain socket for profiling with the given path

--default-not-ready-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for notReady:NoExecute that is added by default to every pod that does not already have such a toleration.

--default-unreachable-toleration-seconds int   Default: 300

Indicates the tolerationSeconds of the toleration for unreachable:NoExecute that is added by default to every pod that does not already have such a toleration.

--delete-collection-workers int   Default: 1

Number of workers spawned for DeleteCollection call. These are used to speed up namespace cleanup.

--disable-admission-plugins strings

admission plugins that should be disabled although they are in the default enabled plugins list (NamespaceLifecycle, LimitRanger, ServiceAccount, TaintNodesByCondition, PodSecurity, Priority, DefaultTolerationSeconds, DefaultStorageClass, StorageObjectInUseProtection, PersistentVolumeClaimResize, RuntimeClass, CertificateApproval, CertificateSigning, ClusterTrustBundleAttest, CertificateSubjectRestriction, DefaultIngressClass, MutatingAdmissionWebhook, ValidatingAdmissionPolicy, ValidatingAdmissionWebhook, ResourceQuota). Comma-delimited list of admission plugins: AlwaysAdmit, AlwaysDeny, AlwaysPullImages, CertificateApproval, CertificateSigning, CertificateSubjectRestriction, ClusterTrustBundleAttest, DefaultIngressClass, DefaultStorageClass, DefaultTolerationSeconds, DenyServiceExternalIPs, EventRateLimit, ExtendedResourceToleration, ImagePolicyWebhook, LimitPodHardAntiAffinityTopology, LimitRanger, MutatingAdmissionWebhook, NamespaceAutoProvision, NamespaceExists, NamespaceLifecycle, NodeRestriction, OwnerReferencesPermissionEnforcement, PersistentVolumeClaimResize, PodNodeSelector, PodSecurity, PodTolerationRestriction, Priority, ResourceQuota, RuntimeClass, ServiceAccount, StorageObjectInUseProtection, TaintNodesByCondition, ValidatingAdmissionPolicy, ValidatingAdmissionWebhook. The order of plugins in this flag does not matter.

--disable-http2-serving

If true, HTTP2 serving will be disabled [default=false]

--disabled-metrics strings

This flag provides an escape hatch for misbehaving metrics. You must provide the fully qualified metric name in order to disable it. Disclaimer: disabling metrics is higher in precedence than showing hidden metrics.

--egress-selector-config-file string

File with apiserver egress selector configuration.

--emulated-version strings

The versions different components emulate their capabilities (APIs, features, ...) of. If set, the component will emulate the behavior of this version instead of the underlying binary version.
Version format could only be major.minor, for example: '--emulated-version=wardle=1.2,kube=1.31'. Options are:
kube=1.31..1.31 (default=1.31)If the component is not specified, defaults to "kube"

--enable-admission-plugins strings

admission plugins that should be enabled in addition to default enabled ones
(NamespaceLifecycle, LimitRanger, ServiceAccount, TaintNodesByCondition,
PodSecurity, Priority, DefaultTolerationSeconds, DefaultStorageClass,
StorageObjectInUseProtection, PersistentVolumeClaimResize, RuntimeClass,
CertificateApproval, CertificateSigning, ClusterTrustBundleAttest,
CertificateSubjectRestriction, DefaultIngressClass, MutatingAdmissionWebhook,
ValidatingAdmissionPolicy, ValidatingAdmissionWebhook, ResourceQuota). Comma-
delimited list of admission plugins: AlwaysAdmit, AlwaysDeny, AlwaysPullImages,
CertificateApproval, CertificateSigning, CertificateSubjectRestriction,
ClusterTrustBundleAttest, DefaultIngressClass, DefaultStorageClass,
DefaultTolerationSeconds, DenyServiceExternalIPs, EventRateLimit,
ExtendedResourceToleration, ImagePolicyWebhook,
LimitPodHardAntiAffinityTopology, LimitRanger, MutatingAdmissionWebhook,
NamespaceAutoProvision, NamespaceExists, NamespaceLifecycle, NodeRestriction,
OwnerReferencesPermissionEnforcement, PersistentVolumeClaimResize,
PodNodeSelector, PodSecurity, PodTolerationRestriction, Priority, ResourceQuota,
RuntimeClass, ServiceAccount, StorageObjectInUseProtection,
TaintNodesByCondition, ValidatingAdmissionPolicy, ValidatingAdmissionWebhook.
The order of plugins in this flag does not matter.

--enable-aggregator-routing

Turns on aggregator routing requests to endpoints IP rather than cluster IP.

--enable-bootstrap-token-auth

Enable to allow secrets of type 'bootstrap.kubernetes.io/token' in the 'kube-system'
namespace to be used for TLS bootstrapping authentication.

--enable-garbage-collector   Default: true

Enables the generic garbage collector. MUST be synced with the corresponding flag
of the kube-controller-manager.

--enable-priority-and-fairness   Default: true

If true, replace the max-in-flight handler with an enhanced one that queues and
dispatches with priority and fairness

--encryption-provider-config string

The file containing configuration for encryption providers to be used for storing
secrets in etcd

--encryption-provider-config-automatic-reload

Determines if the file set by --encryption-provider-config should be automatically
reloaded if the disk contents change. Setting this to true disables the ability to
uniquely identify distinct KMS plugins via the API server healthz endpoints.

--endpoint-reconciler-type string   Default: "lease"

Use an endpoint reconciler (master-count, lease, none) master-count is deprecated,
and will be removed in a future version.

--etcd-cafile string

SSL Certificate Authority file used to secure etcd communication.

--etcd-certfile string

    SSL certification file used to secure etcd communication.

--etcd-compaction-interval duration   Default: 5m0s

    The interval of compaction requests. If 0, the compaction request from apiserver is disabled.

--etcd-count-metric-poll-period duration   Default: 1m0s

    Frequency of polling etcd for number of resources per type. 0 disables the metric collection.

--etcd-db-metric-poll-interval duration   Default: 30s

    The interval of requests to poll etcd and update metric. 0 disables the metric collection

--etcd-healthcheck-timeout duration   Default: 2s

    The timeout to use when checking etcd health.

--etcd-keyfile string

    SSL key file used to secure etcd communication.

--etcd-prefix string   Default: "/registry"

    The prefix to prepend to all resource paths in etcd.

--etcd-readycheck-timeout duration   Default: 2s

    The timeout to use when checking etcd readiness

--etcd-servers strings

    List of etcd servers to connect with (scheme://ip:port), comma separated.

--etcd-servers-overrides strings

    Per-resource etcd servers overrides, comma separated. The individual override format: group/resource#servers, where servers are URLs, semicolon separated. Note that this applies only to resources compiled into this server binary.

--event-ttl duration   Default: 1h0m0s

    Amount of time to retain events.

--external-hostname string

    The hostname to use when generating externalized URLs for this master (e.g. Swagger API Docs or OpenID Discovery).

--feature-gates colonSeparatedMultimapStringString

Comma-separated list of component:key=value pairs that describe feature gates for alpha/experimental features of different components.
If the component is not specified, defaults to "kube". This flag can be repeatedly invoked. For example: --feature-gates 'wardle:featureA=true,wardle:featureB=false' --feature-gates 'kube:featureC=true'Options are:
kube:APIResponseCompression=true|false (BETA - default=true)
kube:APIServerIdentity=true|false (BETA - default=true)
kube:APIServerTracing=true|false (BETA - default=true)
kube:APIServingWithRoutine=true|false (ALPHA - default=false)
kube:AllAlpha=true|false (ALPHA - default=false)
kube:AllBeta=true|false (BETA - default=false)
kube:AnonymousAuthConfigurableEndpoints=true|false (ALPHA - default=false)
kube:AnyVolumeDataSource=true|false (BETA - default=true)
kube:AuthorizeNodeWithSelectors=true|false (ALPHA - default=false)
kube:AuthorizeWithSelectors=true|false (ALPHA - default=false)
kube:CPUManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
kube:CPUManagerPolicyBetaOptions=true|false (BETA - default=true)
kube:CPUManagerPolicyOptions=true|false (BETA - default=true)
kube:CRDValidationRatcheting=true|false (BETA - default=true)
kube:CSIMigrationPortworx=true|false (BETA - default=true)
kube:CSIVolumeHealth=true|false (ALPHA - default=false)
kube:CloudControllerManagerWebhook=true|false (ALPHA - default=false)
kube:ClusterTrustBundle=true|false (ALPHA - default=false)
kube:ClusterTrustBundleProjection=true|false (ALPHA - default=false)
kube:ComponentSLIs=true|false (BETA - default=true)
kube:ConcurrentWatchObjectDecode=true|false (BETA - default=false)
kube:ConsistentListFromCache=true|false (BETA - default=true)
kube:ContainerCheckpoint=true|false (BETA - default=true)
kube:ContextualLogging=true|false (BETA - default=true)
kube:CoordinatedLeaderElection=true|false (ALPHA - default=false)
kube:CronJobsScheduledAnnotation=true|false (BETA - default=true)
kube:CrossNamespaceVolumeDataSource=true|false (ALPHA - default=false)
kube:CustomCPUCFSQuotaPeriod=true|false (ALPHA - default=false)
kube:CustomResourceFieldSelectors=true|false (BETA - default=true)
kube:DRAControlPlaneController=true|false (ALPHA - default=false)
kube:DisableAllocatorDualWrite=true|false (ALPHA - default=false)
kube:DisableNodeKubeProxyVersion=true|false (BETA - default=true)
kube:DynamicResourceAllocation=true|false (ALPHA - default=false)
kube:EventedPLEG=true|false (ALPHA - default=false)
kube:GracefulNodeShutdown=true|false (BETA - default=true)
kube:GracefulNodeShutdownBasedOnPodPriority=true|false (BETA - default=true)
kube:HPAScaleToZero=true|false (ALPHA - default=false)
kube:HonorPVReclaimPolicy=true|false (BETA - default=true)
kube:ImageMaximumGCAge=true|false (BETA - default=true)
kube:ImageVolume=true|false (ALPHA - default=false)
kube:InPlacePodVerticalScaling=true|false (ALPHA - default=false)
kube:InTreePluginPortworxUnregister=true|false (ALPHA - default=false)
kube:InformerResourceVersion=true|false (ALPHA - default=false)
kube:JobBackoffLimitPerIndex=true|false (BETA - default=true)
kube:JobManagedBy=true|false (ALPHA - default=false)
kube:JobPodReplacementPolicy=true|false (BETA - default=true)
kube:JobSuccessPolicy=true|false (BETA - default=true)
kube:KubeletCgroupDriverFromCRI=true|false (BETA - default=true)
kube:KubeletInUserNamespace=true|false (ALPHA - default=false)
kube:KubeletPodResourcesDynamicResources=true|false (ALPHA - default=false)
kube:KubeletPodResourcesGet=true|false (ALPHA - default=false)
kube:KubeletSeparateDiskGC=true|false (BETA - default=true)
kube:KubeletTracing=true|false (BETA - default=true)
kube:LoadBalancerIPMode=true|false (BETA - default=true)
kube:LocalStorageCapacityIsolationFSQuotaMonitoring=true|false (BETA - default=false)
kube:LoggingAlphaOptions=true|false (ALPHA - default=false)
kube:LoggingBetaOptions=true|false (BETA - default=true)
kube:MatchLabelKeysInPodAffinity=true|false (BETA - default=true)
kube:MatchLabelKeysInPodTopologySpread=true|false (BETA - default=true)
kube:MaxUnavailableStatefulSet=true|false (ALPHA - default=false)
kube:MemoryManager=true|false (BETA - default=true)
kube:MemoryQoS=true|false (ALPHA - default=false)
kube:MultiCIDRServiceAllocator=true|false (BETA - default=false)
kube:MutatingAdmissionPolicy=true|false (ALPHA - default=false)
kube:NFTablesProxyMode=true|false (BETA - default=true)

kube:NodeInclusionPolicyInPodTopologySpread=true|false (BETA - default=true)
kube:NodeLogQuery=true|false (BETA - default=false)
kube:NodeSwap=true|false (BETA - default=true)
kube:OpenAPIEnums=true|false (BETA - default=true)
kube:PodAndContainerStatsFromCRI=true|false (ALPHA - default=false)
kube:PodDeletionCost=true|false (BETA - default=true)
kube:PodIndexLabel=true|false (BETA - default=true)
kube:PodLifecycleSleepAction=true|false (BETA - default=true)
kube:PodReadyToStartContainersCondition=true|false (BETA - default=true)
kube:PortForwardWebsockets=true|false (BETA - default=true)
kube:ProcMountType=true|false (BETA - default=false)
kube:QOSReserved=true|false (ALPHA - default=false)
kube:RecoverVolumeExpansionFailure=true|false (ALPHA - default=false)
kube:RecursiveReadOnlyMounts=true|false (BETA - default=true)
kube:RelaxedEnvironmentVariableValidation=true|false (ALPHA - default=false)
kube:ReloadKubeletServerCertificateFile=true|false (BETA - default=true)
kube:ResilientWatchCacheInitialization=true|false (BETA - default=true)
kube:ResourceHealthStatus=true|false (ALPHA - default=false)
kube:RetryGenerateName=true|false (BETA - default=true)
kube:RotateKubeletServerCertificate=true|false (BETA - default=true)
kube:RuntimeClassInImageCriApi=true|false (ALPHA - default=false)
kube:SELinuxMount=true|false (ALPHA - default=false)
kube:SELinuxMountReadWriteOncePod=true|false (BETA - default=true)
kube:SchedulerQueueingHints=true|false (BETA - default=false)
kube:SeparateCacheWatchRPC=true|false (BETA - default=true)
kube:SeparateTaintEvictionController=true|false (BETA - default=true)
kube:ServiceAccountTokenJTI=true|false (BETA - default=true)
kube:ServiceAccountTokenNodeBinding=true|false (BETA - default=true)
kube:ServiceAccountTokenNodeBindingValidation=true|false (BETA - default=true)
kube:ServiceAccountTokenPodNodeInfo=true|false (BETA - default=true)
kube:ServiceTrafficDistribution=true|false (BETA - default=true)
kube:SidecarContainers=true|false (BETA - default=true)
kube:SizeMemoryBackedVolumes=true|false (BETA - default=true)
kube:StatefulSetAutoDeletePVC=true|false (BETA - default=true)
kube:StorageNamespaceIndex=true|false (BETA - default=true)
kube:StorageVersionAPI=true|false (ALPHA - default=false)
kube:StorageVersionHash=true|false (BETA - default=true)
kube:StorageVersionMigrator=true|false (ALPHA - default=false)
kube:StrictCostEnforcementForVAP=true|false (BETA - default=false)
kube:StrictCostEnforcementForWebhooks=true|false (BETA - default=false)
kube:StructuredAuthenticationConfiguration=true|false (BETA - default=true)
kube:StructuredAuthorizationConfiguration=true|false (BETA - default=true)
kube:SupplementalGroupsPolicy=true|false (ALPHA - default=false)
kube:TopologyAwareHints=true|false (BETA - default=true)
kube:TopologyManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
kube:TopologyManagerPolicyBetaOptions=true|false (BETA - default=true)
kube:TopologyManagerPolicyOptions=true|false (BETA - default=true)
kube:TranslateStreamCloseWebsocketRequests=true|false (BETA - default=true)
kube:UnauthenticatedHTTP2DOSMitigation=true|false (BETA - default=true)
kube:UnknownVersionInteroperabilityProxy=true|false (ALPHA - default=false)
kube:UserNamespacesPodSecurityStandards=true|false (ALPHA - default=false)
kube:UserNamespacesSupport=true|false (BETA - default=false)
kube:VolumeAttributesClass=true|false (BETA - default=false)
kube:VolumeCapacityPriority=true|false (ALPHA - default=false)
kube:WatchCacheInitializationPostStartHook=true|false (BETA - default=false)
kube:WatchFromStorageWithoutResourceVersion=true|false (BETA - default=false)
kube:WatchList=true|false (ALPHA - default=false)
kube:WatchListClient=true|false (BETA - default=false)
kube:WinDSR=true|false (ALPHA - default=false)
kube:WinOverlay=true|false (BETA - default=true)
kube:WindowsHostNetwork=true|false (ALPHA - default=true)

--goaway-chance float

To prevent HTTP/2 clients from getting stuck on a single apiserver, randomly close a connection (GOAWAY). The client's other in-flight requests won't be affected, and the client will reconnect, likely landing on a different apiserver after going through the load balancer again. This argument sets the fraction of requests that will be sent a GOAWAY. Clusters with single apiservers, or which don't use a load balancer, should NOT enable this. Min is 0 (off), Max is .02 (1/50 requests); .001 (1/1000) is a recommended starting point.

-h, --help

help for kube-apiserver

--http2-max-streams-per-connection int

The limit that the server gives to clients for the maximum number of streams in an HTTP/2 connection. Zero means to use golang's default.

--kubelet-certificate-authority string

Path to a cert file for the certificate authority.

--kubelet-client-certificate string

Path to a client cert file for TLS.

--kubelet-client-key string

Path to a client key file for TLS.

--kubelet-preferred-address-types strings   Default: "Hostname,InternalDNS,InternalIP,ExternalDNS,ExternalIP"

List of the preferred NodeAddressTypes to use for kubelet connections.

--kubelet-timeout duration   Default: 5s

Timeout for kubelet operations.

--kubernetes-service-node-port int

If non-zero, the Kubernetes master service (which apiserver creates/maintains) will be of type NodePort, using this as the value of the port. If zero, the Kubernetes master service will be of type ClusterIP.

--lease-reuse-duration-seconds int   Default: 60

The time in seconds that each lease is reused. A lower value could avoid large number of objects reusing the same lease. Notice that a too small value may cause performance problems at storage layer.

--livez-grace-period duration

This option represents the maximum amount of time it should take for apiserver to complete its startup sequence and become live. From apiserver's start time to when this amount of time has elapsed, /livez will assume that unfinished post-start hooks will complete successfully and therefore return true.

--log-flush-frequency duration   Default: 5s

Maximum number of seconds between log flushes

--log-text-info-buffer-size quantity

[Alpha] In text format with split output streams, the info messages can be buffered
for a while to increase performance. The default value of zero bytes disables
buffering. The size can be specified as number of bytes (512), multiples of 1000 (1K),
multiples of 1024 (2Ki), or powers of those (3M, 4G, 5Mi, 6Gi). Enable the
LoggingAlphaOptions feature gate to use this.

--log-text-split-stream

[Alpha] In text format, write error messages to stderr and info messages to stdout.
The default is to write a single stream to stdout. Enable the LoggingAlphaOptions
feature gate to use this.

--logging-format string   Default: "text"

Sets the log format. Permitted formats: "text".

--max-connection-bytes-per-sec int

If non-zero, throttle each user connection to this number of bytes/sec. Currently only
applies to long-running requests.

--max-mutating-requests-inflight int   Default: 200

This and --max-requests-inflight are summed to determine the server's total
concurrency limit (which must be positive) if --enable-priority-and-fairness is true.
Otherwise, this flag limits the maximum number of mutating requests in flight, or a
zero value disables the limit completely.

--max-requests-inflight int   Default: 400

This and --max-mutating-requests-inflight are summed to determine the server's
total concurrency limit (which must be positive) if --enable-priority-and-fairness is
true. Otherwise, this flag limits the maximum number of non-mutating requests in
flight, or a zero value disables the limit completely.

--min-request-timeout int   Default: 1800

An optional field indicating the minimum number of seconds a handler must keep a
request open before timing it out. Currently only honored by the watch request
handler, which picks a randomized value above this number as the connection
timeout, to spread out load.

--oidc-ca-file string

If set, the OpenID server's certificate will be verified by one of the authorities in the
oidc-ca-file, otherwise the host's root CA set will be used.

--oidc-client-id string

The client ID for the OpenID Connect client, must be set if oidc-issuer-url is set.

--oidc-groups-claim string

If provided, the name of a custom OpenID Connect claim for specifying user groups. The claim value is expected to be a string or array of strings. This flag is experimental, please see the authentication documentation for further details.

--oidc-groups-prefix string

If provided, all groups will be prefixed with this value to prevent conflicts with other authentication strategies.

--oidc-issuer-url string

The URL of the OpenID issuer, only HTTPS scheme will be accepted. If set, it will be used to verify the OIDC JSON Web Token (JWT).

--oidc-required-claim <comma-separated 'key=value' pairs>

A key=value pair that describes a required claim in the ID Token. If set, the claim is verified to be present in the ID Token with a matching value. Repeat this flag to specify multiple claims.

--oidc-signing-algs strings   Default: "RS256"

Comma-separated list of allowed JOSE asymmetric signing algorithms. JWTs with a supported 'alg' header values are: RS256, RS384, RS512, ES256, ES384, ES512, PS256, PS384, PS512. Values are defined by RFC 7518 https://tools.ietf.org/html/rfc7518#section-3.1.

--oidc-username-claim string   Default: "sub"

The OpenID claim to use as the user name. Note that claims other than the default ('sub') is not guaranteed to be unique and immutable. This flag is experimental, please see the authentication documentation for further details.

--oidc-username-prefix string

If provided, all usernames will be prefixed with this value. If not provided, username claims other than 'email' are prefixed by the issuer URL to avoid clashes. To skip any prefixing, provide the value '-'.

--peer-advertise-ip string

If set and the UnknownVersionInteroperabilityProxy feature gate is enabled, this IP will be used by peer kube-apiservers to proxy requests to this kube-apiserver when the request cannot be handled by the peer due to version skew between the kube-apiservers. This flag is only used in clusters configured with multiple kube-apiservers for high availability.

--peer-advertise-port string

If set and the UnknownVersionInteroperabilityProxy feature gate is enabled, this port will be used by peer kube-apiservers to proxy requests to this kube-apiserver when the request cannot be handled by the peer due to version skew between the kube-apiservers. This flag is only used in clusters configured with multiple kube-apiservers for high availability.

--peer-ca-file string

If set and the UnknownVersionInteroperabilityProxy feature gate is enabled, this file will be used to verify serving certificates of peer kube-apiservers. This flag is only used in clusters configured with multiple kube-apiservers for high availability.

--permit-address-sharing

If true, SO_REUSEADDR will be used when binding the port. This allows binding to wildcard IPs like 0.0.0.0 and specific IPs in parallel, and it avoids waiting for the kernel to release sockets in TIME_WAIT state. [default=false]

--permit-port-sharing

If true, SO_REUSEPORT will be used when binding the port, which allows more than one instance to bind on the same address and port. [default=false]

--profiling   Default: true

Enable profiling via web interface host:port/debug/pprof/

--proxy-client-cert-file string

Client certificate used to prove the identity of the aggregator or kube-apiserver when it must call out during a request. This includes proxying requests to a user api-server and calling out to webhook admission plugins. It is expected that this cert includes a signature from the CA in the --requestheader-client-ca-file flag. That CA is published in the 'extension-apiserver-authentication' configmap in the kube-system namespace. Components receiving calls from kube-aggregator should use that CA to perform their half of the mutual TLS verification.

--proxy-client-key-file string

Private key for the client certificate used to prove the identity of the aggregator or kube-apiserver when it must call out during a request. This includes proxying requests to a user api-server and calling out to webhook admission plugins.

--request-timeout duration   Default: 1m0s

An optional field indicating the duration a handler must keep a request open before timing it out. This is the default request timeout for requests but may be overridden by flags such as --min-request-timeout for specific types of requests.

--requestheader-allowed-names strings

List of client certificate common names to allow to provide usernames in headers specified by --requestheader-username-headers. If empty, any client certificate validated by the authorities in --requestheader-client-ca-file is allowed.

--requestheader-client-ca-file string

Root certificate bundle to use to verify client certificates on incoming requests before trusting usernames in headers specified by --requestheader-username-headers. WARNING: generally do not depend on authorization being already done for incoming requests.

--requestheader-extra-headers-prefix strings

List of request header prefixes to inspect. X-Remote-Extra- is suggested.

--requestheader-group-headers strings

List of request headers to inspect for groups. X-Remote-Group is suggested.

--requestheader-username-headers strings

List of request headers to inspect for usernames. X-Remote-User is common.

--runtime-config <comma-separated 'key=value' pairs>

A set of key=value pairs that enable or disable built-in APIs. Supported options are:
v1=true|false for the core API group
<group>/<version>=true|false for a specific API group and version (e.g. apps/v1=true)
api/all=true|false controls all API versions
api/ga=true|false controls all API versions of the form v[0-9]+
api/beta=true|false controls all API versions of the form v[0-9]+beta[0-9]+
api/alpha=true|false controls all API versions of the form v[0-9]+alpha[0-9]+
api/legacy is deprecated, and will be removed in a future version

--secure-port int   Default: 6443

The port on which to serve HTTPS with authentication and authorization. It cannot be switched off with 0.

--service-account-extend-token-expiration   Default: true

Turns on projected service account expiration extension during token generation, which helps safe transition from legacy token to bound service account token feature. If this flag is enabled, admission injected tokens would be extended up to 1 year to prevent unexpected failure during transition, ignoring value of service-account-max-token-expiration.

--service-account-issuer strings

Identifier of the service account token issuer. The issuer will assert this identifier in "iss" claim of issued tokens. This value is a string or URI. If this option is not a valid URI per the OpenID Discovery 1.0 spec, the ServiceAccountIssuerDiscovery feature will remain disabled, even if the feature gate is set to true. It is highly recommended that this value comply with the OpenID spec: https://openid.net/specs/openid-connect-discovery-1_0.html. In practice, this means that service-account-issuer must be an https URL. It is also highly recommended that this URL be capable of serving OpenID discovery documents at {service-account-issuer}/.well-known/openid-configuration. When this flag is specified multiple times, the first is used to generate tokens and all are used to determine which issuers are accepted.

--service-account-jwks-uri string

Overrides the URI for the JSON Web Key Set in the discovery doc served at /.well-known/openid-configuration. This flag is useful if the discovery docand key set are served to relying parties from a URL other than the API server's external (as auto-detected or overridden with external-hostname).

--service-account-key-file strings

File containing PEM-encoded x509 RSA or ECDSA private or public keys, used to verify ServiceAccount tokens. The specified file can contain multiple keys, and the flag can be specified multiple times with different files. If unspecified, --tls-private-key-file is used. Must be specified when --service-account-signing-key-file is provided

--service-account-lookup   Default: true

If true, validate ServiceAccount tokens exist in etcd as part of authentication.

--service-account-max-token-expiration duration

The maximum validity duration of a token created by the service account token issuer. If an otherwise valid TokenRequest with a validity duration larger than this value is requested, a token will be issued with a validity duration of this value.

--service-account-signing-key-file string

Path to the file that contains the current private key of the service account token issuer. The issuer will sign issued ID tokens with this private key.

--service-cluster-ip-range string

A CIDR notation IP range from which to assign service cluster IPs. This must not overlap with any IP ranges assigned to nodes or pods. Max of two dual-stack CIDRs is allowed.

--service-node-port-range <a string in the form 'N1-N2'>   Default: 30000-32767

A port range to reserve for services with NodePort visibility. This must not overlap with the ephemeral port range on nodes. Example: '30000-32767'. Inclusive at both ends of the range.

--show-hidden-metrics-for-version string

The previous version for which you want to show hidden metrics. Only the previous minor version is meaningful, other values will not be allowed. The format is <major>.<minor>, e.g.: '1.16'. The purpose of this format is make sure you have the opportunity to notice if the next release hides additional metrics, rather than being surprised when they are permanently removed in the release after that.

--shutdown-delay-duration duration

Time to delay the termination. During that time the server keeps serving requests normally. The endpoints /healthz and /livez will return success, but /readyz immediately returns failure. Graceful termination starts after this delay has elapsed. This can be used to allow load balancer to stop sending traffic to this server.

--shutdown-send-retry-after

If true the HTTP Server will continue listening until all non long running request(s) in flight have been drained, during this window all incoming requests will be rejected with a status code 429 and a 'Retry-After' response header, in addition 'Connection: close' response header is set in order to tear down the TCP connection when idle.

--shutdown-watch-termination-grace-period duration

This option, if set, represents the maximum amount of grace period the apiserver will wait for active watch request(s) to drain during the graceful server shutdown window.

--storage-backend string

The storage backend for persistence. Options: 'etcd3' (default).

--storage-initialization-timeout duration   Default: 1m0s

Maximum amount of time to wait for storage initialization before declaring apiserver ready. Defaults to 1m.

--storage-media-type string   Default: "application/vnd.kubernetes.protobuf"

The media type to use to store objects in storage. Some resources or storage backends may only support a specific media type and will ignore this setting. Supported media types: [application/json, application/yaml, application/vnd.kubernetes.protobuf]

--strict-transport-security-directives strings

List of directives for HSTS, comma separated. If this list is empty, then HSTS directives will not be added. Example: 'max-age=31536000,includeSubDomains,preload'

--tls-cert-file string

File containing the default x509 Certificate for HTTPS. (CA cert, if any, concatenated after server cert). If HTTPS serving is enabled, and --tls-cert-file and --tls-private-key-file are not provided, a self-signed certificate and key are generated for the public address and saved to the directory specified by --cert-dir.

--tls-cipher-suites strings

Comma-separated list of cipher suites for the server. If omitted, the default Go cipher suites will be used.
Preferred values: TLS_AES_128_GCM_SHA256, TLS_AES_256_GCM_SHA384, TLS_CHACHA20_POLY1305_SHA256, TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305, TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305, TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256.
Insecure values: TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256, TLS_ECDHE_ECDSA_WITH_RC4_128_SHA, TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256, TLS_ECDHE_RSA_WITH_RC4_128_SHA, TLS_RSA_WITH_3DES_EDE_CBC_SHA, TLS_RSA_WITH_AES_128_CBC_SHA, TLS_RSA_WITH_AES_128_CBC_SHA256, TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_CBC_SHA, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_RSA_WITH_RC4_128_SHA.

--tls-min-version string

Minimum TLS version supported. Possible values: VersionTLS10, VersionTLS11, VersionTLS12, VersionTLS13

--tls-private-key-file string

File containing the default x509 private key matching --tls-cert-file.

--tls-sni-cert-key string

A pair of x509 certificate and private key file paths, optionally suffixed with a list of domain patterns which are fully qualified domain names, possibly with prefixed wildcard segments. The domain patterns also allow IP addresses, but IPs should only be used if the apiserver has visibility to the IP address requested by a client. If no domain patterns are provided, the names of the certificate are extracted. Non-wildcard matches trump over wildcard matches, explicit domain patterns trump over extracted names. For multiple key/certificate pairs, use the --tls-sni-cert-key multiple times. Examples: "example.crt,example.key" or "foo.crt,foo.key:*.foo.com,foo.com".

--token-auth-file string

If set, the file that will be used to secure the secure port of the API server via token authentication.

--tracing-config-file string

File with apiserver tracing configuration.

-v, --v int

number for the log level verbosity

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

--vmodule pattern=N,...

comma-separated list of pattern=N settings for file-filtered logging (only works for text log format)

--watch-cache   Default: true

Enable watch caching in the apiserver

--watch-cache-sizes strings

Watch cache size settings for some resources (pods, nodes, etc.), comma separated. The individual setting format: resource[.group]#size, where resource is lowercase plural (no version), group is omitted for resources of apiVersion v1 (the legacy core API) and included for others, and size is a number. This option is only meaningful for resources built into the apiserver, not ones defined by CRDs or aggregated from external servers, and is only consulted if the watch-cache is enabled. The only meaningful size setting to supply here is zero, which means to disable watch caching for the associated resource; all non-zero values are equivalent and mean to not disable watch caching for that resource

12.5 - kube-controller-manager

Synopsis

The Kubernetes controller manager is a daemon that embeds the core control loops shipped with Kubernetes. In applications of robotics and automation, a control loop is a non-terminating loop that regulates the state of the system. In Kubernetes, a controller is a control loop that watches the shared state of the cluster through the apiserver and makes changes attempting to move the current state towards the desired state. Examples of controllers that ship with Kubernetes today are the replication controller, endpoints controller, namespace controller, and serviceaccounts controller.

```
kube-controller-manager [flags]
```

Options

--allocate-node-cidrs

Should CIDRs for Pods be allocated and set on the cloud provider.

--allow-metric-labels stringToString   Default: []

The map from metric-label to value allow-list of this label. The key's format is <MetricName>,<LabelName>. The value's format is <allowed_value>,<allowed_value>...e.g. metric1,label1='v1,v2,v3', metric1,label2='v1,v2,v3' metric2,label1='v1,v2,v3'.

--allow-metric-labels-manifest string

The path to the manifest file that contains the allow-list mapping. The format of the file is the same as the flag --allow-metric-labels. Note that the flag --allow-metric-labels will override the manifest file.

--attach-detach-reconcile-sync-period duration   Default: 1m0s

---

The reconciler sync wait time between volume attach detach. This duration must be larger than one second, and increasing this value from the default may allow for volumes to be mismatched with pods.

--authentication-kubeconfig string

---

kubeconfig file pointing at the 'core' kubernetes server with enough rights to create tokenreviews.authentication.k8s.io. This is optional. If empty, all token requests are considered to be anonymous and no client CA is looked up in the cluster.

--authentication-skip-lookup

If false, the authentication-kubeconfig will be used to lookup missing authentication configuration from the cluster.

--authentication-token-webhook-cache-ttl duration   Default: 10s

The duration to cache responses from the webhook token authenticator.

--authentication-tolerate-lookup-failure

If true, failures to look up missing authentication configuration from the cluster are not considered fatal. Note that this can result in authentication that treats all requests as anonymous.

--authorization-always-allow-paths strings   Default: "/healthz,/readyz,/livez"

A list of HTTP paths to skip during authorization, i.e. these are authorized without contacting the 'core' kubernetes server.

--authorization-kubeconfig string

kubeconfig file pointing at the 'core' kubernetes server with enough rights to create subjectaccessreviews.authorization.k8s.io. This is optional. If empty, all requests not skipped by authorization are forbidden.

--authorization-webhook-cache-authorized-ttl duration   Default: 10s

The duration to cache 'authorized' responses from the webhook authorizer.

--authorization-webhook-cache-unauthorized-ttl duration   Default: 10s

The duration to cache 'unauthorized' responses from the webhook authorizer.

--bind-address string   Default: 0.0.0.0

The IP address on which to listen for the --secure-port port. The associated interface(s) must be reachable by the rest of the cluster, and by CLI/web clients. If blank or an unspecified address (0.0.0.0 or ::), all interfaces and IP address families will be used.

--cert-dir string

The directory where the TLS certs are located. If --tls-cert-file and --tls-private-key-file are provided, this flag will be ignored.

--cidr-allocator-type string   Default: "RangeAllocator"

Type of CIDR allocator to use

--client-ca-file string

If set, any request presenting a client certificate signed by one of the authorities in the client-ca-file is authenticated with an identity corresponding to the CommonName of the client certificate.

--cloud-config string

The path to the cloud provider configuration file. Empty string for no configuration file.

--cloud-provider string

> The provider for cloud services. Empty string for no provider.

--cluster-cidr string

> CIDR Range for Pods in cluster. Requires --allocate-node-cidrs to be true

--cluster-name string   Default: "kubernetes"

> The instance prefix for the cluster.

--cluster-signing-cert-file string

> Filename containing a PEM-encoded X509 CA certificate used to issue cluster-scoped certificates. If specified, no more specific --cluster-signing-* flag may be specified.

--cluster-signing-duration duration   Default: 8760h0m0s

> The max length of duration signed certificates will be given. Individual CSRs may request shorter certs by setting spec.expirationSeconds.

--cluster-signing-key-file string

> Filename containing a PEM-encoded RSA or ECDSA private key used to sign cluster-scoped certificates. If specified, no more specific --cluster-signing-* flag may be specified.

--cluster-signing-kube-apiserver-client-cert-file string

> Filename containing a PEM-encoded X509 CA certificate used to issue certificates for the kubernetes.io/kube-apiserver-client signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-kube-apiserver-client-key-file string

> Filename containing a PEM-encoded RSA or ECDSA private key used to sign certificates for the kubernetes.io/kube-apiserver-client signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-kubelet-client-cert-file string

> Filename containing a PEM-encoded X509 CA certificate used to issue certificates for the kubernetes.io/kube-apiserver-client-kubelet signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-kubelet-client-key-file string

> Filename containing a PEM-encoded RSA or ECDSA private key used to sign certificates for the kubernetes.io/kube-apiserver-client-kubelet signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-kubelet-serving-cert-file string

Filename containing a PEM-encoded X509 CA certificate used to issue certificates for the kubernetes.io/kubelet-serving signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-kubelet-serving-key-file string

Filename containing a PEM-encoded RSA or ECDSA private key used to sign certificates for the kubernetes.io/kubelet-serving signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-legacy-unknown-cert-file string

Filename containing a PEM-encoded X509 CA certificate used to issue certificates for the kubernetes.io/legacy-unknown signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--cluster-signing-legacy-unknown-key-file string

Filename containing a PEM-encoded RSA or ECDSA private key used to sign certificates for the kubernetes.io/legacy-unknown signer. If specified, --cluster-signing-{cert,key}-file must not be set.

--concurrent-cron-job-syncs int32   Default: 5

The number of cron job objects that are allowed to sync concurrently. Larger number = more responsive jobs, but more CPU (and network) load

--concurrent-deployment-syncs int32   Default: 5

The number of deployment objects that are allowed to sync concurrently. Larger number = more responsive deployments, but more CPU (and network) load

--concurrent-endpoint-syncs int32   Default: 5

The number of endpoint syncing operations that will be done concurrently. Larger number = faster endpoint updating, but more CPU (and network) load

--concurrent-ephemeralvolume-syncs int32   Default: 5

The number of ephemeral volume syncing operations that will be done concurrently. Larger number = faster ephemeral volume updating, but more CPU (and network) load

--concurrent-gc-syncs int32   Default: 20

The number of garbage collector workers that are allowed to sync concurrently.

--concurrent-horizontal-pod-autoscaler-syncs int32   Default: 5

The number of horizontal pod autoscaler objects that are allowed to sync concurrently. Larger number = more responsive horizontal pod autoscaler objects processing, but more CPU (and network) load.

--concurrent-job-syncs int32   Default: 5

The number of job objects that are allowed to sync concurrently. Larger number = more responsive jobs, but more CPU (and network) load

--concurrent-namespace-syncs int32   Default: 10

The number of namespace objects that are allowed to sync concurrently. Larger number = more responsive namespace termination, but more CPU (and network) load

--concurrent-rc-syncs int32   Default: 5

The number of replication controllers that are allowed to sync concurrently. Larger number = more responsive replica management, but more CPU (and network) load

--concurrent-replicaset-syncs int32   Default: 5

The number of replica sets that are allowed to sync concurrently. Larger number = more responsive replica management, but more CPU (and network) load

--concurrent-resource-quota-syncs int32   Default: 5

The number of resource quotas that are allowed to sync concurrently. Larger number = more responsive quota management, but more CPU (and network) load

--concurrent-service-endpoint-syncs int32   Default: 5

The number of service endpoint syncing operations that will be done concurrently. Larger number = faster endpoint slice updating, but more CPU (and network) load. Defaults to 5.

--concurrent-service-syncs int32   Default: 1

The number of services that are allowed to sync concurrently. Larger number = more responsive service management, but more CPU (and network) load

--concurrent-serviceaccount-token-syncs int32   Default: 5

The number of service account token objects that are allowed to sync concurrently. Larger number = more responsive token generation, but more CPU (and network) load

--concurrent-statefulset-syncs int32   Default: 5

The number of statefulset objects that are allowed to sync concurrently. Larger number = more responsive statefulsets, but more CPU (and network) load

--concurrent-ttl-after-finished-syncs int32   Default: 5

The number of ttl-after-finished-controller workers that are allowed to sync concurrently.

--concurrent-validating-admission-policy-status-syncs int32   Default: 5

The number of ValidatingAdmissionPolicyStatusController workers that are allowed to sync concurrently.

--configure-cloud-routes   Default: true

Should CIDRs allocated by allocate-node-cidrs be configured on the cloud provider.

--contention-profiling

Enable block profiling, if profiling is enabled

--controller-start-interval duration

Interval between starting controller managers.

--controllers strings   Default: "*"

A list of controllers to enable. '*' enables all on-by-default controllers, 'foo' enables
the controller named 'foo', '-foo' disables the controller named 'foo'.
All controllers: bootstrap-signer-controller, certificatesigningrequest-approving-
controller, certificatesigningrequest-cleaner-controller, certificatesigningrequest-
signing-controller, cloud-node-lifecycle-controller, clusterrole-aggregation-controller,
cronjob-controller, daemonset-controller, deployment-controller, disruption-
controller, endpoints-controller, endpointslice-controller, endpointslice-mirroring-
controller, ephemeral-volume-controller, garbage-collector-controller, horizontal-
pod-autoscaler-controller, job-controller, legacy-serviceaccount-token-cleaner-
controller, namespace-controller, node-ipam-controller, node-lifecycle-controller,
node-route-controller, persistentvolume-attach-detach-controller, persistentvolume-
binder-controller, persistentvolume-expander-controller, persistentvolume-
protection-controller, persistentvolumeclaim-protection-controller, pod-garbage-
collector-controller, replicaset-controller, replicationcontroller-controller,
resourceclaim-controller, resourcequota-controller, root-ca-certificate-publisher-
controller, service-cidr-controller, service-lb-controller, serviceaccount-controller,
serviceaccount-token-controller, statefulset-controller, storage-version-migrator-
controller, storageversion-garbage-collector-controller, taint-eviction-controller,
token-cleaner-controller, ttl-after-finished-controller, ttl-controller,
validatingadmissionpolicy-status-controller
Disabled-by-default controllers: bootstrap-signer-controller, token-cleaner-controller

--disable-attach-detach-reconcile-sync

Disable volume attach detach reconciler sync. Disabling this may cause volumes to be
mismatched with pods. Use wisely.

--disable-force-detach-on-timeout

Prevent force detaching volumes based on maximum unmount time and node
status. If this flag is set to true, the non-graceful node shutdown feature must be
used to recover from node failure. See https://k8s.io/docs/storage-disable-force-
detach-on-timeout/.

--disable-http2-serving

If true, HTTP2 serving will be disabled [default=false]

--disabled-metrics strings

This flag provides an escape hatch for misbehaving metrics. You must provide the
fully qualified metric name in order to disable it. Disclaimer: disabling metrics is
higher in precedence than showing hidden metrics.

--emulated-version strings

The versions different components emulate their capabilities (APIs, features, ...) of.
If set, the component will emulate the behavior of this version instead of the underlying binary version.
Version format could only be major.minor, for example: '--emulated-version=wardle=1.2,kube=1.31'. Options are:
kube=1.31..1.31 (default=1.31)If the component is not specified, defaults to "kube"

--enable-dynamic-provisioning   Default: true

Enable dynamic provisioning for environments that support it.

--enable-garbage-collector   Default: true

Enables the generic garbage collector. MUST be synced with the corresponding flag of the kube-apiserver.

--enable-hostpath-provisioner

Enable HostPath PV provisioning when running without a cloud provider. This allows testing and development of provisioning features. HostPath provisioning is not supported in any way, won't work in a multi-node cluster, and should not be used for anything other than testing or development.

--enable-leader-migration

Whether to enable controller leader migration.

--endpoint-updates-batch-period duration

The length of endpoint updates batching period. Processing of pod changes will be delayed by this duration to join them with potential upcoming updates and reduce the overall number of endpoints updates. Larger number = higher endpoint programming latency, but lower number of endpoints revision generated

---

--endpointslice-updates-batch-period duration

The length of endpoint slice updates batching period. Processing of pod changes will be delayed by this duration to join them with potential upcoming updates and reduce the overall number of endpoints updates. Larger number = higher endpoint programming latency, but lower number of endpoints revision generated

---

--external-cloud-volume-plugin string

The plugin to use when cloud provider is set to external. Can be empty, should only be set when cloud-provider is external. Currently used to allow node-ipam-controller, persistentvolume-binder-controller, persistentvolume-expander-controller and attach-detach-controller to work for in tree cloud providers.

--feature-gates colonSeparatedMultimapStringString

Comma-separated list of component:key=value pairs that describe feature gates for
alpha/experimental features of different components.
If the component is not specified, defaults to "kube". This flag can be repeatedly
invoked. For example: --feature-gates 'wardle:featureA=true,wardle:featureB=false' --
feature-gates 'kube:featureC=true'Options are:
kube:APIResponseCompression=true|false (BETA - default=true)
kube:APIServerIdentity=true|false (BETA - default=true)
kube:APIServerTracing=true|false (BETA - default=true)
kube:APIServingWithRoutine=true|false (ALPHA - default=false)
kube:AllAlpha=true|false (ALPHA - default=false)
kube:AllBeta=true|false (BETA - default=false)
kube:AnonymousAuthConfigurableEndpoints=true|false (ALPHA - default=false)
kube:AnyVolumeDataSource=true|false (BETA - default=true)
kube:AuthorizeNodeWithSelectors=true|false (ALPHA - default=false)
kube:AuthorizeWithSelectors=true|false (ALPHA - default=false)
kube:CPUManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
kube:CPUManagerPolicyBetaOptions=true|false (BETA - default=true)
kube:CPUManagerPolicyOptions=true|false (BETA - default=true)
kube:CRDValidationRatcheting=true|false (BETA - default=true)
kube:CSIMigrationPortworx=true|false (BETA - default=true)
kube:CSIVolumeHealth=true|false (ALPHA - default=false)
kube:CloudControllerManagerWebhook=true|false (ALPHA - default=false)
kube:ClusterTrustBundle=true|false (ALPHA - default=false)
kube:ClusterTrustBundleProjection=true|false (ALPHA - default=false)
kube:ComponentSLIs=true|false (BETA - default=true)
kube:ConcurrentWatchObjectDecode=true|false (BETA - default=false)
kube:ConsistentListFromCache=true|false (BETA - default=true)
kube:ContainerCheckpoint=true|false (BETA - default=true)
kube:ContextualLogging=true|false (BETA - default=true)
kube:CoordinatedLeaderElection=true|false (ALPHA - default=false)
kube:CronJobsScheduledAnnotation=true|false (BETA - default=true)
kube:CrossNamespaceVolumeDataSource=true|false (ALPHA - default=false)
kube:CustomCPUCFSQuotaPeriod=true|false (ALPHA - default=false)
kube:CustomResourceFieldSelectors=true|false (BETA - default=true)
kube:DRAControlPlaneController=true|false (ALPHA - default=false)
kube:DisableAllocatorDualWrite=true|false (ALPHA - default=false)
kube:DisableNodeKubeProxyVersion=true|false (BETA - default=true)
kube:DynamicResourceAllocation=true|false (ALPHA - default=false)
kube:EventedPLEG=true|false (ALPHA - default=false)
kube:GracefulNodeShutdown=true|false (BETA - default=true)
kube:GracefulNodeShutdownBasedOnPodPriority=true|false (BETA - default=true)
kube:HPAScaleToZero=true|false (ALPHA - default=false)
kube:HonorPVReclaimPolicy=true|false (BETA - default=true)
kube:ImageMaximumGCAge=true|false (BETA - default=true)
kube:ImageVolume=true|false (ALPHA - default=false)
kube:InPlacePodVerticalScaling=true|false (ALPHA - default=false)
kube:InTreePluginPortworxUnregister=true|false (ALPHA - default=false)
kube:InformerResourceVersion=true|false (ALPHA - default=false)
kube:JobBackoffLimitPerIndex=true|false (BETA - default=true)
kube:JobManagedBy=true|false (ALPHA - default=false)
kube:JobPodReplacementPolicy=true|false (BETA - default=true)
kube:JobSuccessPolicy=true|false (BETA - default=true)
kube:KubeletCgroupDriverFromCRI=true|false (BETA - default=true)
kube:KubeletInUserNamespace=true|false (ALPHA - default=false)
kube:KubeletPodResourcesDynamicResources=true|false (ALPHA - default=false)
kube:KubeletPodResourcesGet=true|false (ALPHA - default=false)
kube:KubeletSeparateDiskGC=true|false (BETA - default=true)
kube:KubeletTracing=true|false (BETA - default=true)
kube:LoadBalancerIPMode=true|false (BETA - default=true)
kube:LocalStorageCapacityIsolationFSQuotaMonitoring=true|false (BETA -
default=false)
kube:LoggingAlphaOptions=true|false (ALPHA - default=false)
kube:LoggingBetaOptions=true|false (BETA - default=true)
kube:MatchLabelKeysInPodAffinity=true|false (BETA - default=true)
kube:MatchLabelKeysInPodTopologySpread=true|false (BETA - default=true)
kube:MaxUnavailableStatefulSet=true|false (ALPHA - default=false)
kube:MemoryManager=true|false (BETA - default=true)
kube:MemoryQoS=true|false (ALPHA - default=false)
kube:MultiCIDRServiceAllocator=true|false (BETA - default=false)
kube:MutatingAdmissionPolicy=true|false (ALPHA - default=false)
kube:NFTablesProxyMode=true|false (BETA - default=true)

kube:NodeInclusionPolicyInPodTopologySpread=true|false (BETA - default=true)
kube:NodeLogQuery=true|false (BETA - default=false)
kube:NodeSwap=true|false (BETA - default=true)
kube:OpenAPIEnums=true|false (BETA - default=true)
kube:PodAndContainerStatsFromCRI=true|false (ALPHA - default=false)
kube:PodDeletionCost=true|false (BETA - default=true)
kube:PodIndexLabel=true|false (BETA - default=true)
kube:PodLifecycleSleepAction=true|false (BETA - default=true)
kube:PodReadyToStartContainersCondition=true|false (BETA - default=true)
kube:PortForwardWebsockets=true|false (BETA - default=true)
kube:ProcMountType=true|false (BETA - default=false)
kube:QOSReserved=true|false (ALPHA - default=false)
kube:RecoverVolumeExpansionFailure=true|false (ALPHA - default=false)
kube:RecursiveReadOnlyMounts=true|false (BETA - default=true)
kube:RelaxedEnvironmentVariableValidation=true|false (ALPHA - default=false)
kube:ReloadKubeletServerCertificateFile=true|false (BETA - default=true)
kube:ResilientWatchCacheInitialization=true|false (BETA - default=true)
kube:ResourceHealthStatus=true|false (ALPHA - default=false)
kube:RetryGenerateName=true|false (BETA - default=true)
kube:RotateKubeletServerCertificate=true|false (BETA - default=true)
kube:RuntimeClassInImageCriApi=true|false (ALPHA - default=false)
kube:SELinuxMount=true|false (ALPHA - default=false)
kube:SELinuxMountReadWriteOncePod=true|false (BETA - default=true)
kube:SchedulerQueueingHints=true|false (BETA - default=false)
kube:SeparateCacheWatchRPC=true|false (BETA - default=true)
kube:SeparateTaintEvictionController=true|false (BETA - default=true)
kube:ServiceAccountTokenJTI=true|false (BETA - default=true)
kube:ServiceAccountTokenNodeBinding=true|false (BETA - default=true)
kube:ServiceAccountTokenNodeBindingValidation=true|false (BETA - default=true)
kube:ServiceAccountTokenPodNodeInfo=true|false (BETA - default=true)
kube:ServiceTrafficDistribution=true|false (BETA - default=true)
kube:SidecarContainers=true|false (BETA - default=true)
kube:SizeMemoryBackedVolumes=true|false (BETA - default=true)
kube:StatefulSetAutoDeletePVC=true|false (BETA - default=true)
kube:StorageNamespaceIndex=true|false (BETA - default=true)
kube:StorageVersionAPI=true|false (ALPHA - default=false)
kube:StorageVersionHash=true|false (BETA - default=true)
kube:StorageVersionMigrator=true|false (ALPHA - default=false)
kube:StrictCostEnforcementForVAP=true|false (BETA - default=false)
kube:StrictCostEnforcementForWebhooks=true|false (BETA - default=false)
kube:StructuredAuthenticationConfiguration=true|false (BETA - default=true)
kube:StructuredAuthorizationConfiguration=true|false (BETA - default=true)
kube:SupplementalGroupsPolicy=true|false (ALPHA - default=false)
kube:TopologyAwareHints=true|false (BETA - default=true)
kube:TopologyManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
kube:TopologyManagerPolicyBetaOptions=true|false (BETA - default=true)
kube:TopologyManagerPolicyOptions=true|false (BETA - default=true)
kube:TranslateStreamCloseWebsocketRequests=true|false (BETA - default=true)
kube:UnauthenticatedHTTP2DOSMitigation=true|false (BETA - default=true)
kube:UnknownVersionInteroperabilityProxy=true|false (ALPHA - default=false)
kube:UserNamespacesPodSecurityStandards=true|false (ALPHA - default=false)
kube:UserNamespacesSupport=true|false (BETA - default=false)
kube:VolumeAttributesClass=true|false (BETA - default=false)
kube:VolumeCapacityPriority=true|false (ALPHA - default=false)
kube:WatchCacheInitializationPostStartHook=true|false (BETA - default=false)
kube:WatchFromStorageWithoutResourceVersion=true|false (BETA - default=false)
kube:WatchList=true|false (ALPHA - default=false)
kube:WatchListClient=true|false (BETA - default=false)
kube:WinDSR=true|false (ALPHA - default=false)
kube:WinOverlay=true|false (BETA - default=true)
kube:WindowsHostNetwork=true|false (ALPHA - default=true)

--flex-volume-plugin-dir string   Default: "/usr/libexec/kubernetes/kubelet-plugins/
volume/exec/"

Full path of the directory in which the flex volume plugin should search for additional
third party volume plugins.

-h, --help

help for kube-controller-manager

--horizontal-pod-autoscaler-cpu-initialization-period duration   Default: 5m0s

The period after pod start when CPU samples might be skipped.

--horizontal-pod-autoscaler-downscale-stabilization duration   Default: 5m0s

The period for which autoscaler will look backwards and not scale down below any recommendation it made during that period.

--horizontal-pod-autoscaler-initial-readiness-delay duration   Default: 30s

The period after pod start during which readiness changes will be treated as initial readiness.

--horizontal-pod-autoscaler-sync-period duration   Default: 15s

The period for syncing the number of pods in horizontal pod autoscaler.

--horizontal-pod-autoscaler-tolerance float   Default: 0.1

The minimum change (from 1.0) in the desired-to-actual metrics ratio for the horizontal pod autoscaler to consider scaling.

--http2-max-streams-per-connection int

The limit that the server gives to clients for the maximum number of streams in an HTTP/2 connection. Zero means to use golang's default.

--kube-api-burst int32   Default: 30

Burst to use while talking with kubernetes apiserver.

--kube-api-content-type string   Default: "application/vnd.kubernetes.protobuf"

Content type of requests sent to apiserver.

--kube-api-qps float   Default: 20

QPS to use while talking with kubernetes apiserver.

--kubeconfig string

Path to kubeconfig file with authorization and master location information (the master location can be overridden by the master flag).

--large-cluster-size-threshold int32   Default: 50

Number of nodes from which node-lifecycle-controller treats the cluster as large for the eviction logic purposes. --secondary-node-eviction-rate is implicitly overridden to 0 for clusters this size or smaller. Notice: If nodes reside in multiple zones, this threshold will be considered as zone node size threshold for each zone to determine node eviction rate independently.

--leader-elect   Default: true

Start a leader election client and gain leadership before executing the main loop. Enable this when running replicated components for high availability.

--leader-elect-lease-duration duration   Default: 15s

The duration that non-leader candidates will wait after observing a leadership renewal until attempting to acquire leadership of a led but unrenewed leader slot. This is effectively the maximum duration that a leader can be stopped before it is replaced by another candidate. This is only applicable if leader election is enabled.

--leader-elect-renew-deadline duration   Default: 10s

The interval between attempts by the acting master to renew a leadership slot before it stops leading. This must be less than the lease duration. This is only applicable if leader election is enabled.

--leader-elect-resource-lock string   Default: "leases"

The type of resource object that is used for locking during leader election. Supported options are 'leases', 'endpointsleases' and 'configmapsleases'.

--leader-elect-resource-name string   Default: "kube-controller-manager"

The name of resource object that is used for locking during leader election.

--leader-elect-resource-namespace string   Default: "kube-system"

The namespace of resource object that is used for locking during leader election.

--leader-elect-retry-period duration   Default: 2s

The duration the clients should wait between attempting acquisition and renewal of a leadership. This is only applicable if leader election is enabled.

--leader-migration-config string

Path to the config file for controller leader migration, or empty to use the value that reflects default configuration of the controller manager. The config file should be of type LeaderMigrationConfiguration, group controllermanager.config.k8s.io, version v1alpha1.

--legacy-service-account-token-clean-up-period duration   Default: 8760h0m0s

---

The period of time since the last usage of an legacy service account token before it can be deleted.

--log-flush-frequency duration   Default: 5s

Maximum number of seconds between log flushes

--log-text-info-buffer-size quantity

[Alpha] In text format with split output streams, the info messages can be buffered for a while to increase performance. The default value of zero bytes disables buffering. The size can be specified as number of bytes (512), multiples of 1000 (1K), multiples of 1024 (2Ki), or powers of those (3M, 4G, 5Mi, 6Gi). Enable the LoggingAlphaOptions feature gate to use this.

--log-text-split-stream

[Alpha] In text format, write error messages to stderr and info messages to stdout. The default is to write a single stream to stdout. Enable the LoggingAlphaOptions feature gate to use this.

--logging-format string   Default: "text"

Sets the log format. Permitted formats: "text".

--master string

The address of the Kubernetes API server (overrides any value in kubeconfig).

--max-endpoints-per-slice int32   Default: 100

The maximum number of endpoints that will be added to an EndpointSlice. More endpoints per slice will result in less endpoint slices, but larger resources. Defaults to 100.

--min-resync-period duration   Default: 12h0m0s

The resync period in reflectors will be random between MinResyncPeriod and 2*MinResyncPeriod.

--mirroring-concurrent-service-endpoint-syncs int32   Default: 5

The number of service endpoint syncing operations that will be done concurrently by the endpointslice-mirroring-controller. Larger number = faster endpoint slice updating, but more CPU (and network) load. Defaults to 5.

--mirroring-endpointslice-updates-batch-period duration

The length of EndpointSlice updates batching period for endpointslice-mirroring-controller. Processing of EndpointSlice changes will be delayed by this duration to join them with potential upcoming updates and reduce the overall number of EndpointSlice updates. Larger number = higher endpoint programming latency, but lower number of endpoints revision generated

---

--mirroring-max-endpoints-per-subset int32   Default: 1000

The maximum number of endpoints that will be added to an EndpointSlice by the endpointslice-mirroring-controller. More endpoints per slice will result in less endpoint slices, but larger resources. Defaults to 100.

--namespace-sync-period duration   Default: 5m0s

The period for syncing namespace life-cycle updates

--node-cidr-mask-size int32

Mask size for node cidr in cluster. Default is 24 for IPv4 and 64 for IPv6.

--node-cidr-mask-size-ipv4 int32

Mask size for IPv4 node cidr in dual-stack cluster. Default is 24.

--node-cidr-mask-size-ipv6 int32

Mask size for IPv6 node cidr in dual-stack cluster. Default is 64.

--node-eviction-rate float   Default: 0.1

Number of nodes per second on which pods are deleted in case of node failure when a zone is healthy (see --unhealthy-zone-threshold for definition of healthy/unhealthy). Zone refers to entire cluster in non-multizone clusters.

--node-monitor-grace-period duration   Default: 40s

Amount of time which we allow running Node to be unresponsive before marking it unhealthy. Must be N times more than kubelet's nodeStatusUpdateFrequency, where N means number of retries allowed for kubelet to post node status.

--node-monitor-period duration   Default: 5s

The period for syncing NodeStatus in cloud-node-lifecycle-controller.

--node-startup-grace-period duration   Default: 1m0s

Amount of time which we allow starting Node to be unresponsive before marking it unhealthy.

--permit-address-sharing

If true, SO_REUSEADDR will be used when binding the port. This allows binding to wildcard IPs like 0.0.0.0 and specific IPs in parallel, and it avoids waiting for the kernel to release sockets in TIME_WAIT state. [default=false]

--permit-port-sharing

If true, SO_REUSEPORT will be used when binding the port, which allows more than one instance to bind on the same address and port. [default=false]

--profiling   Default: true

Enable profiling via web interface host:port/debug/pprof/

--pv-recycler-increment-timeout-nfs int32   Default: 30

---

the increment of time added per Gi to ActiveDeadlineSeconds for an NFS scrubber pod

--pv-recycler-minimum-timeout-hostpath int32   Default: 60

The minimum ActiveDeadlineSeconds to use for a HostPath Recycler pod. This is for development and testing only and will not work in a multi-node cluster.

--pv-recycler-minimum-timeout-nfs int32   Default: 300

The minimum ActiveDeadlineSeconds to use for an NFS Recycler pod

--pv-recycler-pod-template-filepath-hostpath string

The file path to a pod definition used as a template for HostPath persistent volume recycling. This is for development and testing only and will not work in a multi-node cluster.

--pv-recycler-pod-template-filepath-nfs string

The file path to a pod definition used as a template for NFS persistent volume recycling

--pv-recycler-timeout-increment-hostpath int32   Default: 30

the increment of time added per Gi to ActiveDeadlineSeconds for a HostPath scrubber pod. This is for development and testing only and will not work in a multi-node cluster.

--pvclaimbinder-sync-period duration   Default: 15s

The period for syncing persistent volumes and persistent volume claims

--requestheader-allowed-names strings

List of client certificate common names to allow to provide usernames in headers specified by --requestheader-username-headers. If empty, any client certificate validated by the authorities in --requestheader-client-ca-file is allowed.

--requestheader-client-ca-file string

Root certificate bundle to use to verify client certificates on incoming requests before trusting usernames in headers specified by --requestheader-username-headers. WARNING: generally do not depend on authorization being already done for incoming requests.

--requestheader-extra-headers-prefix strings   Default: "x-remote-extra-"

List of request header prefixes to inspect. X-Remote-Extra- is suggested.

--requestheader-group-headers strings   Default: "x-remote-group"

List of request headers to inspect for groups. X-Remote-Group is suggested.

--requestheader-username-headers strings   Default: "x-remote-user"

List of request headers to inspect for usernames. X-Remote-User is common.

--resource-quota-sync-period duration   Default: 5m0s

The period for syncing quota usage status in the system

--root-ca-file string

If set, this root certificate authority will be included in service account's token secret. This must be a valid PEM-encoded CA bundle.

--route-reconciliation-period duration   Default: 10s

The period for reconciling routes created for Nodes by cloud provider.

--secondary-node-eviction-rate float   Default: 0.01

Number of nodes per second on which pods are deleted in case of node failure when a zone is unhealthy (see --unhealthy-zone-threshold for definition of healthy/unhealthy). Zone refers to entire cluster in non-multizone clusters. This value is implicitly overridden to 0 if the cluster size is smaller than --large-cluster-size-threshold.

--secure-port int   Default: 10257

The port on which to serve HTTPS with authentication and authorization. If 0, don't serve HTTPS at all.

--service-account-private-key-file string

Filename containing a PEM-encoded private RSA or ECDSA key used to sign service account tokens.

--service-cluster-ip-range string

CIDR Range for Services in cluster. Requires --allocate-node-cidrs to be true

---

--show-hidden-metrics-for-version string

The previous version for which you want to show hidden metrics. Only the previous minor version is meaningful, other values will not be allowed. The format is <major>.<minor>, e.g.: '1.16'. The purpose of this format is make sure you have the opportunity to notice if the next release hides additional metrics, rather than being surprised when they are permanently removed in the release after that.

--terminated-pod-gc-threshold int32   Default: 12500

Number of terminated pods that can exist before the terminated pod garbage collector starts deleting terminated pods. If <= 0, the terminated pod garbage collector is disabled.

--tls-cert-file string

File containing the default x509 Certificate for HTTPS. (CA cert, if any, concatenated after server cert). If HTTPS serving is enabled, and --tls-cert-file and --tls-private-key-file are not provided, a self-signed certificate and key are generated for the public address and saved to the directory specified by --cert-dir.

--tls-cipher-suites strings

Comma-separated list of cipher suites for the server. If omitted, the default Go cipher suites will be used.
Preferred values: TLS_AES_128_GCM_SHA256, TLS_AES_256_GCM_SHA384, TLS_CHACHA20_POLY1305_SHA256, TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_ECDSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_ECDSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_ECDSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305, TLS_ECDHE_ECDSA_WITH_CHACHA20_POLY1305_SHA256, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_128_GCM_SHA256, TLS_ECDHE_RSA_WITH_AES_256_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_256_GCM_SHA384, TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305, TLS_ECDHE_RSA_WITH_CHACHA20_POLY1305_SHA256.
Insecure values: TLS_ECDHE_ECDSA_WITH_AES_128_CBC_SHA256, TLS_ECDHE_ECDSA_WITH_RC4_128_SHA, TLS_ECDHE_RSA_WITH_3DES_EDE_CBC_SHA, TLS_ECDHE_RSA_WITH_AES_128_CBC_SHA256, TLS_ECDHE_RSA_WITH_RC4_128_SHA, TLS_RSA_WITH_3DES_EDE_CBC_SHA, TLS_RSA_WITH_AES_128_CBC_SHA, TLS_RSA_WITH_AES_128_CBC_SHA256, TLS_RSA_WITH_AES_128_GCM_SHA256, TLS_RSA_WITH_AES_256_CBC_SHA, TLS_RSA_WITH_AES_256_GCM_SHA384, TLS_RSA_WITH_RC4_128_SHA.

--tls-min-version string

Minimum TLS version supported. Possible values: VersionTLS10, VersionTLS11, VersionTLS12, VersionTLS13

--tls-private-key-file string

File containing the default x509 private key matching --tls-cert-file.

--tls-sni-cert-key string

A pair of x509 certificate and private key file paths, optionally suffixed with a list of domain patterns which are fully qualified domain names, possibly with prefixed wildcard segments. The domain patterns also allow IP addresses, but IPs should only be used if the apiserver has visibility to the IP address requested by a client. If no domain patterns are provided, the names of the certificate are extracted. Non-wildcard matches trump over wildcard matches, explicit domain patterns trump over extracted names. For multiple key/certificate pairs, use the --tls-sni-cert-key multiple times. Examples: "example.crt,example.key" or "foo.crt,foo.key:*.foo.com,foo.com".

--unhealthy-zone-threshold float   Default: 0.55

Fraction of Nodes in a zone which needs to be not Ready (minimum 3) for zone to be treated as unhealthy.

--use-service-account-credentials

If true, use individual service account credentials for each controller.

-v, --v int

number for the log level verbosity

--version version[=true]

--version, --version=raw prints version information and quits; --version=vX.Y.Z... sets the reported version

---

--vmodule pattern=N,...

---

comma-separated list of pattern=N settings for file-filtered logging (only works for text log format)

--vmodule pattern=N,...

comma-separated list of pattern=N settings for file-filtered logging (only works for text log format)

12.6 - kube-proxy

Synopsis

The Kubernetes network proxy runs on each node. This reflects services as defined in the Kubernetes API on each node and can do simple TCP, UDP, and SCTP stream forwarding or round robin TCP, UDP, and SCTP forwarding across a set of backends. Service cluster IPs and ports are currently found through Docker-links-compatible environment variables specifying ports opened by the service proxy. There is an optional addon that provides cluster DNS for these cluster IPs. The user must create a service with the apiserver API to configure the proxy.

```
kube-proxy [flags]
```

Options

--add_dir_header

If true, adds the file directory to the header of the log messages

---

--alsologtostderr

---

log to standard error as well as files (no effect when -logtostderr=true)

--bind-address string   Default: 0.0.0.0

Overrides kube-proxy's idea of what its node's primary IP is. Note that the name is a historical artifact, and kube-proxy does not actually bind any sockets to this IP. This parameter is ignored if a config file is specified by --config.

--bind-address-hard-fail

If true kube-proxy will treat failure to bind to a port as fatal and exit

---

--cleanup

If true cleanup iptables and ipvs rules and exit.

--cluster-cidr string

The CIDR range of the pods in the cluster. (For dual-stack clusters, this can be a comma-separated dual-stack pair of CIDR ranges.). When --detect-local-mode is set to ClusterCIDR, kube-proxy will consider traffic to be local if its source IP is in this range. (Otherwise it is not used.) This parameter is ignored if a config file is specified by --config.

--config string

The path to the configuration file.

--config-sync-period duration   Default: 15m0s

How often configuration from the apiserver is refreshed. Must be greater than 0.

--conntrack-max-per-core int32   Default: 32768

Maximum number of NAT connections to track per CPU core (0 to leave the limit as-is and ignore conntrack-min).

--conntrack-min int32   Default: 131072

Minimum number of conntrack entries to allocate, regardless of conntrack-max-per-core (set conntrack-max-per-core=0 to leave the limit as-is).

--conntrack-tcp-be-liberal

Enable liberal mode for tracking TCP packets by setting nf_conntrack_tcp_be_liberal to 1

--conntrack-tcp-timeout-close-wait duration   Default: 1h0m0s

---

NAT timeout for TCP connections in the CLOSE_WAIT state

--conntrack-tcp-timeout-established duration   Default: 24h0m0s

---

Idle timeout for established TCP connections (0 to leave as-is)

--conntrack-udp-timeout duration

Idle timeout for UNREPLIED UDP connections (0 to leave as-is)

--conntrack-udp-timeout-stream duration

Idle timeout for ASSURED UDP connections (0 to leave as-is)

--detect-local-mode LocalMode

Mode to use to detect local traffic. This parameter is ignored if a config file is specified by --config.

--feature-gates <comma-separated 'key=True|False' pairs>

A set of key=value pairs that describe feature gates for alpha/experimental features.
Options are:
APIResponseCompression=true|false (BETA - default=true)
APIServerIdentity=true|false (BETA - default=true)
APIServerTracing=true|false (BETA - default=true)
APIServingWithRoutine=true|false (ALPHA - default=false)
AllAlpha=true|false (ALPHA - default=false)
AllBeta=true|false (BETA - default=false)
AnonymousAuthConfigurableEndpoints=true|false (ALPHA - default=false)
AnyVolumeDataSource=true|false (BETA - default=true)
AuthorizeNodeWithSelectors=true|false (ALPHA - default=false)
AuthorizeWithSelectors=true|false (ALPHA - default=false)
CPUManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
CPUManagerPolicyBetaOptions=true|false (BETA - default=true)
CPUManagerPolicyOptions=true|false (BETA - default=true)
CRDValidationRatcheting=true|false (BETA - default=true)
CSIMigrationPortworx=true|false (BETA - default=true)
CSIVolumeHealth=true|false (ALPHA - default=false)
CloudControllerManagerWebhook=true|false (ALPHA - default=false)
ClusterTrustBundle=true|false (ALPHA - default=false)
ClusterTrustBundleProjection=true|false (ALPHA - default=false)
ComponentSLIs=true|false (BETA - default=true)
ConcurrentWatchObjectDecode=true|false (BETA - default=false)
ConsistentListFromCache=true|false (BETA - default=true)
ContainerCheckpoint=true|false (BETA - default=true)
ContextualLogging=true|false (BETA - default=true)
CoordinatedLeaderElection=true|false (ALPHA - default=false)
CronJobsScheduledAnnotation=true|false (BETA - default=true)
CrossNamespaceVolumeDataSource=true|false (ALPHA - default=false)
CustomCPUCFSQuotaPeriod=true|false (ALPHA - default=false)
CustomResourceFieldSelectors=true|false (BETA - default=true)
DRAControlPlaneController=true|false (ALPHA - default=false)
DisableAllocatorDualWrite=true|false (ALPHA - default=false)
DisableNodeKubeProxyVersion=true|false (BETA - default=true)
DynamicResourceAllocation=true|false (ALPHA - default=false)
EventedPLEG=true|false (ALPHA - default=false)
GracefulNodeShutdown=true|false (BETA - default=true)
GracefulNodeShutdownBasedOnPodPriority=true|false (BETA - default=true)
HPAScaleToZero=true|false (ALPHA - default=false)
HonorPVReclaimPolicy=true|false (BETA - default=true)
ImageMaximumGCAge=true|false (BETA - default=true)
ImageVolume=true|false (ALPHA - default=false)
InPlacePodVerticalScaling=true|false (ALPHA - default=false)
InTreePluginPortworxUnregister=true|false (ALPHA - default=false)
InformerResourceVersion=true|false (ALPHA - default=false)
JobBackoffLimitPerIndex=true|false (BETA - default=true)
JobManagedBy=true|false (ALPHA - default=false)
JobPodReplacementPolicy=true|false (BETA - default=true)
JobSuccessPolicy=true|false (BETA - default=true)
KubeletCgroupDriverFromCRI=true|false (BETA - default=true)
KubeletInUserNamespace=true|false (ALPHA - default=false)
KubeletPodResourcesDynamicResources=true|false (ALPHA - default=false)
KubeletPodResourcesGet=true|false (ALPHA - default=false)
KubeletSeparateDiskGC=true|false (BETA - default=true)
KubeletTracing=true|false (BETA - default=true)
LoadBalancerIPMode=true|false (BETA - default=true)
LocalStorageCapacityIsolationFSQuotaMonitoring=true|false (BETA - default=false)
LoggingAlphaOptions=true|false (ALPHA - default=false)
LoggingBetaOptions=true|false (BETA - default=true)
MatchLabelKeysInPodAffinity=true|false (BETA - default=true)
MatchLabelKeysInPodTopologySpread=true|false (BETA - default=true)
MaxUnavailableStatefulSet=true|false (ALPHA - default=false)
MemoryManager=true|false (BETA - default=true)
MemoryQoS=true|false (ALPHA - default=false)
MultiCIDRServiceAllocator=true|false (BETA - default=false)
MutatingAdmissionPolicy=true|false (ALPHA - default=false)
NFTablesProxyMode=true|false (BETA - default=true)
NodeInclusionPolicyInPodTopologySpread=true|false (BETA - default=true)
NodeLogQuery=true|false (BETA - default=false)
NodeSwap=true|false (BETA - default=true)
OpenAPIEnums=true|false (BETA - default=true)

PodAndContainerStatsFromCRI=true|false (ALPHA - default=false)
PodDeletionCost=true|false (BETA - default=true)
PodIndexLabel=true|false (BETA - default=true)
PodLifecycleSleepAction=true|false (BETA - default=true)
PodReadyToStartContainersCondition=true|false (BETA - default=true)
PortForwardWebsockets=true|false (BETA - default=true)
ProcMountType=true|false (BETA - default=false)
QOSReserved=true|false (ALPHA - default=false)
RecoverVolumeExpansionFailure=true|false (ALPHA - default=false)
RecursiveReadOnlyMounts=true|false (BETA - default=true)
RelaxedEnvironmentVariableValidation=true|false (ALPHA - default=false)
ReloadKubeletServerCertificateFile=true|false (BETA - default=true)
ResilientWatchCacheInitialization=true|false (BETA - default=true)
ResourceHealthStatus=true|false (ALPHA - default=false)
RetryGenerateName=true|false (BETA - default=true)
RotateKubeletServerCertificate=true|false (BETA - default=true)
RuntimeClassInImageCriApi=true|false (ALPHA - default=false)
SELinuxMount=true|false (ALPHA - default=false)
SELinuxMountReadWriteOncePod=true|false (BETA - default=true)
SchedulerQueueingHints=true|false (BETA - default=false)
SeparateCacheWatchRPC=true|false (BETA - default=true)
SeparateTaintEvictionController=true|false (BETA - default=true)
ServiceAccountTokenJTI=true|false (BETA - default=true)
ServiceAccountTokenNodeBinding=true|false (BETA - default=true)
ServiceAccountTokenNodeBindingValidation=true|false (BETA - default=true)
ServiceAccountTokenPodNodeInfo=true|false (BETA - default=true)
ServiceTrafficDistribution=true|false (BETA - default=true)
SidecarContainers=true|false (BETA - default=true)
SizeMemoryBackedVolumes=true|false (BETA - default=true)
StatefulSetAutoDeletePVC=true|false (BETA - default=true)
StorageNamespaceIndex=true|false (BETA - default=true)
StorageVersionAPI=true|false (ALPHA - default=false)
StorageVersionHash=true|false (BETA - default=true)
StorageVersionMigrator=true|false (ALPHA - default=false)
StrictCostEnforcementForVAP=true|false (BETA - default=false)
StrictCostEnforcementForWebhooks=true|false (BETA - default=false)
StructuredAuthenticationConfiguration=true|false (BETA - default=true)
StructuredAuthorizationConfiguration=true|false (BETA - default=true)
SupplementalGroupsPolicy=true|false (ALPHA - default=false)
TopologyAwareHints=true|false (BETA - default=true)
TopologyManagerPolicyAlphaOptions=true|false (ALPHA - default=false)
TopologyManagerPolicyBetaOptions=true|false (BETA - default=true)
TopologyManagerPolicyOptions=true|false (BETA - default=true)
TranslateStreamCloseWebsocketRequests=true|false (BETA - default=true)
UnauthenticatedHTTP2DOSMitigation=true|false (BETA - default=true)
UnknownVersionInteroperabilityProxy=true|false (ALPHA - default=false)
UserNamespacesPodSecurityStandards=true|false (ALPHA - default=false)
UserNamespacesSupport=true|false (BETA - default=false)
VolumeAttributesClass=true|false (BETA - default=false)
VolumeCapacityPriority=true|false (ALPHA - default=false)
WatchCacheInitializationPostStartHook=true|false (BETA - default=false)
WatchFromStorageWithoutResourceVersion=true|false (BETA - default=false)
WatchList=true|false (ALPHA - default=false)
WatchListClient=true|false (BETA - default=false)
WinDSR=true|false (ALPHA - default=false)
WinOverlay=true|false (BETA - default=true)
WindowsHostNetwork=true|false (ALPHA - default=true)
This parameter is ignored if a config file is specified by --config.

--healthz-bind-address ipport   Default: 0.0.0.0:10256

The IP address and port for the health check server to serve on, defaulting to
"0.0.0.0:10256". This parameter is ignored if a config file is specified by --config.

-h, --help

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help for kube-proxy