docker service update

Estimated reading time: 16 minutes

Description

Update a service

API 1.24+ (https://docs.docker.com/engine/api/v1.24/) The client and daemon API must both be at least 1.24 (https://docs.docker.com/engine/api/v1.24/) to use this command. Use the `docker version` command on the client to check your client and daemon API versions.

Swarm This command works with the Swarm orchestrator.

Usage

```
docker service update [OPTIONS] SERVICE
```

Options

Name, shorthand	Default	Description
--args		Service command args
--config-add		**API 1.30+** (https://docs.docker.com/engine/api/v1.30/) Add or update a config file on a service
--config-rm		**API 1.30+** (https://docs.docker.com/engine/api/v1.30/) Remove a configuration file
--constraint-add		Add or update a placement constraint
--constraint-rm		Remove a Constraint
--container-label-add		Add or update a container label
--container-label-rm		Remove a container label by its key

Name, shorthand	Default	Description
--credential-spec		API 1.29+ (https://docs.docker.com/engine/api/v1.29/) Credential spec for managed service account (Windows only)
--detach , -d		API 1.29+ (https://docs.docker.com/engine/api/v1.29/) Exit immediately instead of waiting for the service to converge
--dns-add		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Add or update a custom DNS server
--dns-option-add		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Add or update a DNS option
--dns-option-rm		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Remove a DNS option
--dns-rm		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Remove a custom DNS server
--dns-search-add		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Add or update a custom DNS search domain
--dns-search-rm		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Remove a DNS search domain
--endpoint-mode		Endpoint mode (vip or dnsrr)
--entrypoint		Overwrite the default ENTRYPOINT of the image
--env-add		Add or update an environment variable
--env-rm		Remove an environment variable
--force		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Force update even if no changes require it
--generic-resource-add		Add a Generic resource

Name, shorthand	Default	Description
`--generic-resource-rm`		Remove a Generic resource
`--group-add`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Add an additional supplementary user group to the container
`--group-rm`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Remove a previously added supplementary user group from the container
`--health-cmd`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Command to run to check health
`--health-interval`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Time between running the check (ms|s|m|h)
`--health-retries`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Consecutive failures needed to report unhealthy
`--health-start-period`		API 1.29+ (https://docs.docker.com/engine/api/v1.29/) Start period for the container to initialize before counting retries towards unstable (ms|s|m|h)
`--health-timeout`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Maximum time to allow one check to run (ms|s|m|h)
`--host-add`		API 1.32+ (https://docs.docker.com/engine/api/v1.32/) Add a custom host-to-IP mapping (host:ip)
`--host-rm`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Remove a custom host-to-IP mapping (host:ip)
`--hostname`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Container hostname

Name, shorthand	Default	Description
`--image`		Service image tag
`--isolation`		API 1.35+ (https://docs.docker.com/engine/api/v1.35/) Service container isolation mode
`--label-add`		Add or update a service label
`--label-rm`		Remove a label by its key
`--limit-cpu`		Limit CPUs
`--limit-memory`		Limit Memory
`--log-driver`		Logging driver for service
`--log-opt`		Logging driver options
`--mount-add`		Add or update a mount on a service
`--mount-rm`		Remove a mount by its target path
`--network-add`		API 1.29+ (https://docs.docker.com/engine/api/v1.29/) Add a network
`--network-rm`		API 1.29+ (https://docs.docker.com/engine/api/v1.29/) Remove a network
`--no-healthcheck`		API 1.25+ (https://docs.docker.com/engine/api/v1.25/) Disable any container-specified HEALTHCHECK
`--no-resolve-image`		API 1.30+ (https://docs.docker.com/engine/api/v1.30/) Do not query the registry to resolve image digest and supported platforms
`--placement-pref-add`		API 1.28+ (https://docs.docker.com/engine/api/v1.28/) Add a placement preference
`--placement-pref-rm`		API 1.28+ (https://docs.docker.com/engine/api/v1.28/) Remove a placement preference
`--publish-add`		Add or update a published port

Name, shorthand	Default	Description
--publish-rm		Remove a published port by its target port
--quiet , -q		Suppress progress output
--read-only		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Mount the container's root filesystem as read only
--replicas		Number of tasks
--reserve-cpu		Reserve CPUs
--reserve-memory		Reserve Memory
--restart-condition		Restart when condition is met ("none"|"on-failure"|"any")
--restart-delay		Delay between restart attempts (ns|us|ms|s|m|h)
--restart-max-attempts		Maximum number of restarts before giving up
--restart-window		Window used to evaluate the restart policy (ns|us|ms|s|m|h)
--rollback		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Rollback to previous specification
--rollback-delay		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Delay between task rollbacks (ns|us|ms|s|m|h)
--rollback-failure-action		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Action on rollback failure ("pause"|"continue")
--rollback-max-failure-ratio		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Failure rate to tolerate during a rollback
--rollback-monitor		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Duration after each task rollback to monitor for failure (ns|us|ms|s|m|h)

Name, shorthand	Default	Description
--rollback-order		**API 1.29+** (https://docs.docker.com/engine/api/v1.29/) Rollback order ("start-first"|"stop-first")
--rollback-parallelism		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Maximum number of tasks rolled back simultaneously (0 to roll back all at once)
--secret-add		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Add or update a secret on a service
--secret-rm		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Remove a secret
--stop-grace-period		Time to wait before force killing a container (ns|us|ms|s|m|h)
--stop-signal		**API 1.28+** (https://docs.docker.com/engine/api/v1.28/) Signal to stop the container
--tty , -t		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Allocate a pseudo-TTY
--update-delay		Delay between updates (ns|us|ms|s|m|h)
--update-failure-action		Action on update failure ("pause"|"continue"|"rollback")
--update-max-failure-ratio		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Failure rate to tolerate during an update
--update-monitor		**API 1.25+** (https://docs.docker.com/engine/api/v1.25/) Duration after each task update to monitor for failure (ns|us|ms|s|m|h)
--update-order		**API 1.29+** (https://docs.docker.com/engine/api/v1.29/) Update order ("start-first"|"stop-first")
--update-parallelism		Maximum number of tasks updated simultaneously (0 to update all at once)

Name, shorthand	Default	Description
`--user , -u`		Username or UID (format: <name|uid>[:<group|gid>])
`--with-registry-auth`		Send registry authentication details to swarm agents
`--workdir , -w`		Working directory inside the container

Parent command

Command	Description
docker service (https://docs.docker.com/engine/reference/commandline/service)	Manage services

Related commands

Command	Description
docker service create (https://docs.docker.com/engine/reference/commandline/service_create/)	Create a new service
docker service inspect (https://docs.docker.com/engine/reference/commandline/service_inspect/)	Display detailed information on one or more services
docker service logs (https://docs.docker.com/engine/reference/commandline/service_logs/)	Fetch the logs of a service or task
docker service ls (https://docs.docker.com/engine/reference/commandline/service_ls/)	List services
docker service ps (https://docs.docker.com/engine/reference/commandline/service_ps/)	List the tasks of one or more services
docker service rm (https://docs.docker.com/engine/reference/commandline/service_rm/)	Remove one or more services

Command	Description
docker service rollback (https://docs.docker.com/engine/reference/commandline/service_rollback/)	Revert changes to a service's configuration
docker service scale (https://docs.docker.com/engine/reference/commandline/service_scale/)	Scale one or multiple replicated services
docker service update (https://docs.docker.com/engine/reference/commandline/service_update/)	Update a service

Extended description

Updates a service as described by the specified parameters. This command has to be run targeting a manager node. The parameters are the same as

`docker service create`

(https://docs.docker.com/engine/reference/commandline/service_create/). Please look at the description there for further information.

Normally, updating a service will only cause the service's tasks to be replaced with new ones if a change to the service requires recreating the tasks for it to take effect. For example, only changing the `--update-parallelism` setting will not recreate the tasks, because the individual tasks are not affected by this setting. However, the `--force` flag will cause the tasks to be recreated anyway. This can be used to perform a rolling restart without any changes to the service parameters.

Examples

Update a service

```
$ docker service update --limit-cpu 2 redis
```

Perform a rolling restart with no parameter changes

```
$ docker service update --force --update-parallelism 1 --update-delay 30s redi
```

In this example, the `--force` flag causes the service's tasks to be shut down and replaced with new ones even though none of the other parameters would normally cause that to happen. The `--update-parallelism 1` setting ensures that only one task is replaced at a time (this is the default behavior). The `--update-delay 30s` setting introduces a 30 second delay between tasks, so that the rolling restart happens gradually.

Add or remove mounts

Use the `--mount-add` or `--mount-rm` options add or remove a service's bind mounts or volumes.

The following example creates a service which mounts the `test-data` volume to `/somewhere`. The next step updates the service to also mount the `other-volume` volume to `/somewhere-else` volume, The last step unmounts the `/somewhere` mount point, effectively removing the `test-data` volume. Each command returns the service name.

- The `--mount-add` flag takes the same parameters as the `--mount` flag on `service create`. Refer to the volumes and bind mounts (https://docs.docker.com/engine/reference/commandline/service_create/#volumes-and-bind-mounts-mount) section in the `service create` reference for details.

- The `--mount-rm` flag takes the `target` path of the mount.

```
$ docker service create \
    --name=myservice \
    --mount \
      type=volume,source=test-data,target=/somewhere \
    nginx:alpine \
    myservice

myservice

$ docker service update \
    --mount-add \
      type=volume,source=other-volume,target=/somewhere-else \
    myservice

myservice

$ docker service update --mount-rm /somewhere myservice

myservice
```

Add or remove published service ports

Use the `--publish-add` or `--publish-rm` flags to add or remove a published port for a service. You can use the short or long syntax discussed in the docker service create (https://docs.docker.com/engine/reference/commandline/service_create/#publish-service-ports-externally-to-the-swarm) reference.

The following example adds a published service port to an existing service.

```
$ docker service update \
  --publish-add published=8080,target=80 \
  myservice
```

Add or remove network

Use the `--network-add` or `--network-rm` flags to add or remove a network for a service. You can use the short or long syntax discussed in the docker service create (https://docs.docker.com/engine/reference/commandline/service_create/#attach-a-service-to-an-existing-network-network) reference.

The following example adds a new alias name to an existing service already connected to network my-network:

```
$ docker service update \
  --network-rm my-network \
  --network-add name=my-network,alias=web1 \
  myservice
```

Roll back to the previous version of a service

Use the `--rollback` option to roll back to the previous version of the service.

This will revert the service to the configuration that was in place before the most recent `docker service update` command.

The following example updates the number of replicas for the service from 4 to 5, and then rolls back to the previous configuration.

```
$ docker service update --replicas=5 web

web

$ docker service ls

ID            NAME   MODE        REPLICAS   IMAGE
80bvrzp6vxf3  web    replicated  0/5        nginx:alpine
```

Roll back the `web` service...

```
$ docker service update --rollback web

web

$ docker service ls

ID            NAME   MODE        REPLICAS   IMAGE
80bvrzp6vxf3  web    replicated  0/4        nginx:alpine
```

Other options can be combined with `--rollback` as well, for example,
`--update-delay 0s` to execute the rollback without a delay between tasks:

```
$ docker service update \
  --rollback \
  --update-delay 0s
  web

web
```

Services can also be set up to roll back to the previous version automatically when an
update fails. To set up a service for automatic rollback, use
`--update-failure-action=rollback` . A rollback will be triggered if the fraction of the
tasks which failed to update successfully exceeds the value given with
`--update-max-failure-ratio` .

The rate, parallelism, and other parameters of a rollback operation are determined by
the values passed with the following flags:

- `--rollback-delay`
- `--rollback-failure-action`
- `--rollback-max-failure-ratio`
- `--rollback-monitor`
- `--rollback-parallelism`

For example, a service set up with `--update-parallelism 1 --rollback-parallelism 3`
will update one task at a time during a normal update, but during a rollback, 3 tasks at a
time will get rolled back. These rollback parameters are respected both during
automatic rollbacks and for rollbacks initiated manually using `--rollback` .

Add or remove secrets

Use the `--secret-add` or `--secret-rm` options add or remove a service's secrets.

The following example adds a secret named `ssh-2` and removes `ssh-1` :

```
$ docker service update \
    --secret-add source=ssh-2,target=ssh-2 \
    --secret-rm ssh-1 \
    myservice
```

Update services using templates

Some flags of `service update` support the use of templating. See `service create`
(https://docs.docker.com/engine/reference/commandline/service_create/#templating)
for the reference.

Specify isolation mode (Windows)

`service update` supports the same `--isolation` flag as `service create` See
`service create`
(https://docs.docker.com/engine/reference/commandline/service_create/) for the
reference.