

gcloud compute instances add-metadata

Archived: 2026-04-05 23:10:28 UTC

NAME

gcloud compute instances add-metadata - add or update instance metadata

SYNOPSIS

```
gcloud compute instances add-metadata INSTANCE_NAME [ --metadata = KEY = VALUE ,  
[ KEY = VALUE ,... ] ] [ --metadata-from-file = KEY = LOCAL_FILE_PATH ,[... ] ] [ --zone = ZONE ]  
[ GLOUD_WIDE_FLAG ... ]
```

DESCRIPTION

gcloud compute instances add-metadata can be used to add or update the metadata of a virtual machine instance. Every instance has access to a metadata server that can be used to query metadata that has been set through this tool. For information on metadata, see <https://cloud.google.com/compute/docs/metadata>

Only metadata keys that are provided are mutated. Existing metadata entries will remain unaffected.

In order to retrieve custom metadata, run:

See more code actions.

```
gcloud compute instances describe example-instance --zone  
us-central1-a --format="value(metadata)"
```

where example-instance is the name of the virtual machine instance you're querying custom metadata from. For more information about querying custom instance or project metadata through the Cloud Platform Console or the API, see https://cloud.google.com/compute/docs/storing-retrieving-metadata#querying_custom_metadata. If you are using this command to manage SSH keys for your project, please note the [risks](#) of manual SSH key management as well as the required format for SSH key metadata, available at <https://cloud.google.com/compute/docs/instances/adding-removing-ssh-keys>.

EXAMPLES

To add metadata under key *important-data* to an instance named *test-instance*, run:

```
gcloud compute instances add-metadata test-instance --metadata=important-data="2 plus 2 equals 4"
```

To add multiple key-value pairs at once, separate them with commas:

```
gcloud compute instances add-metadata test-instance --metadata=important-data="2 plus 2 equals 4",unimp
```

POSITIONAL ARGUMENTS

`INSTANCE_NAME`

Name of the instance to set metadata on. For details on valid instance names, refer to the criteria documented under the field 'name' at:

<https://cloud.google.com/compute/docs/reference/rest/v1/instances>

FLAGS

`--metadata = KEY = VALUE ,[KEY = VALUE ,...]`

Metadata to be made available to the guest operating system running on the instances. Each metadata entry is a key/value pair separated by an equals sign. Each metadata key must be unique and have a max of 128 bytes in length. Each value must have a max of 256 KB in length. Multiple arguments can be passed to this flag, e.g., `--metadata key-1=value-1,key-2=value-2,key-3=value-3`. The combined total size for all metadata entries is 512 KB.

In images that have Compute Engine tools installed on them, such as the [official images](#), the following metadata keys have special meanings:

`startup-script`

Specifies a script that will be executed by the instances once they start running. For convenience, `--metadata-from-file` can be used to pull the value from a file.

`startup-script-url`

Same as `startup-script` except that the script contents are pulled from a publicly-accessible location on the web. For startup scripts on Windows instances, the following metadata keys have special meanings: `windows-startup-script-url`, `windows-startup-script-cmd`, `windows-startup-script-bat`, `windows-startup-script-ps1`, `sysprep-specialize-script-url`, `sysprep-specialize-script-cmd`, `sysprep-specialize-script-bat`, and `sysprep-specialize-script-ps1`. For more information, see [Running startup scripts](#). At least one of `--metadata` or `--metadata-from-file` is required.

`--metadata-from-file = KEY = LOCAL_FILE_PATH ,[...]`

Same as `--metadata` except that the value for the entry will be read from a local file. This is useful for values that are too large such as `startup-script` contents. At least one of `--metadata` or `--metadata-from-file` is required.

`--zone = ZONE`

Zone of the instance to set metadata on. If not specified, you might be prompted to select a zone (interactive mode only). `gcloud` attempts to identify the appropriate zone by searching for resources in your currently active project. If the zone cannot be determined, `gcloud` prompts you for a selection with all available Google Cloud Platform zones.

To avoid prompting when this flag is omitted, the user can set the `compute/zone` property:

```
gcloud config set compute/zone ZONE
```

A list of zones can be fetched by running:

```
gcloud compute zones list
```

To unset the property, run:

```
gcloud config unset compute/zone
```

Alternatively, the zone can be stored in the environment variable `CLOUDSDK_COMPUTE_ZONE`.

GCLOUD WIDE FLAGS

These flags are available to all commands: [--access-token-file](#), [--account](#), [--billing-project](#), [--configuration](#), [--flags-file](#), [--flatten](#), [--format](#), [--help](#), [--impersonate-service-account](#), [--log-http](#), [--project](#), [--quiet](#), [--trace-token](#), [--user-output-enabled](#), [--verbosity](#).

Run `$ gcloud help` for details.

NOTES

These variants are also available:

```
gcloud alpha compute instances add-metadata
```

```
gcloud beta compute instances add-metadata
```

Source: <https://cloud.google.com/sdk/gcloud/reference/compute/instances/add-metadata>