



## COS Command Line Utilities

COS provides two sets of command line utilities (CLIs) for use on a separate Linux installation to leverage the APIs exposed by the COS node:

- `cos-swift` – provides command-line access to the Swift API
- `cos-swauth` – provides command-line access to the Swauth API

This section explains how to install and use these CLI utilities.



**Note**

For details on the Swift and Swauth APIs, see the *Cisco Cloud Object Storage Release 3.18.1 API Guide*.

## Hardware Prerequisites

Before installing the COS CLI utilities, you must have the following hardware available:

- A COS node, release 2.1.1 or later, staged in either standalone or cluster mode
- A CENTOS 6 Linux workstation on which to install the CLI utilities

## Installing the CLI Utilities

Perform the following steps to install the COS CLI utilities.



**Note**

In the examples shown below, commands that you enter are shown in bold, while system responses are shown in normal type. System responses are typical examples, and may vary by installation.

**Step 1** Copy the COS 3.18.1 ISO image to the Linux workstation that will host the CLI utilities.

```
ll cos_repo-3.18.1.iso
```

```
-rw-r--r-- 1 root root 250613760 Dec 12 20:39 cos_repo-3.18.1.iso
```

**Step 2** Mount the ISO image.

```
mount -o loop cos_repo-3.18.1.iso /mnt/cdrom
```

```
ls /mnt/cdrom
```

```
cos-3.18.1-0b8-local.repo local_repo_setup Packages repodata
```

**Step 3** Install the utilities on the local workstation.**./local\_repo\_setup**

```

Loaded plugins: fastestmirror, security
Loading mirror speeds from cached hostfile
* base: mirror.cogentco.com
* extras: mirrors.advancedhosters.com
* updates: centos.mirror.nac.net
base | 3.7 kB 00:00
base/group_gz | 216 kB 00:00
base/filelists_db | 6.1 MB 00:00
base/other_db | 2.8 MB 00:00
cos-COS-0b8 | 3.6 kB 00:00 ...
cos-COS-0b8/group_gz | 536 B 00:00 ...
cos-COS-0b8/filelists_db | 66 kB 00:00 ...
cos-COS-0b8/primary_db | 43 kB 00:00 ...
cos-COS-0b8/other_db | 20 kB 00:00 ...
extras | 3.4 kB 00:00
extras/filelists_db | 31 kB 00:00
extras/prestodelta | 605 B 00:00
extras/other_db | 37 kB 00:00
updates | 3.4 kB 00:00
updates/filelists_db | 1.5 MB 00:00
updates/prestodelta | 194 kB 00:00
updates/other_db | 19 MB 00:02
Metadata Cache Created
Loaded plugins: fastestmirror, security
Loading mirror speeds from cached hostfile
* base: mirror.cogentco.com
* extras: mirrors.advancedhosters.com
* updates: centos.mirror.nac.net
repo id          repo name          status
base             CentOS-6 - Base    6,518
cos-COS-0b8     Cisco Cloud Object Store COS 57
extras          CentOS-6 - Extras  37
updates         CentOS-6 - Updates 748
repolist: 7,360

```

**Step 4** Run the YUM installation for the COS CLI utilities.**yum install cos-cli**

```

Loaded plugins: fastestmirror, security
Loading mirror speeds from cached hostfile
* base: mirror.cogentco.com
* extras: mirrors.advancedhosters.com
* updates: centos.mirror.nac.net
Setting up Install Process
Resolving Dependencies
--> Running transaction check
---> Package cos-cli.x86_64 0:3.18.1-cos0.1 will be installed
--> Finished Dependency Resolution

```

Dependencies Resolved

```

=====
Package          Arch          Version          Repository        Size
=====
Installing:
cos-cli          x86_64        COS-cos0.1      cos-COS-0b8      142 k
=====

```

```

Transaction Summary
=====
Install          1 Package(s)

Total download size: 142 k
Installed size: 635 k
Is this ok [y/N]: y
Downloading Packages:
Running rpm_check_debug
Running Transaction Test
Transaction Test Succeeded
Running Transaction
  Installing : cos-cli-3.18.1-cos0.1.x86_64      1/1
  Verifying  : cos-cli-3.18.1-cos0.1.x86_64      1/1

Installed:
  cos-cli.x86_64 0:COS-cos0.1

Complete!

The CLI utilities are now ready for use.

```

## Using the CLI Utilities

### cos swauth

The `cos-swauth` CLI utility is used to manage authentication accounts and users in a COS cluster. This utility has the following form:

```
cos-swauth [-a <auth-ip>] [-u <admin-user>] [-k <admin-key>] [-h/- --help <subcommand>]
[-v/- --verbose] [subcommand <options>]
```

You can use the following parameters with this utility:

- `-a <auth-ip>`
  - The IP address of the COS authentication service.
  - The IP address can also be specified by using the `COS_AUTH_IP` environment variable.
- `-u <admin-user>`
  - Name of the user authorizing the command.
  - When unspecified, the user name defaults to `.super_admin`.
  - The user name, except in the case of the super admin, must be specified in the form `<account>:<user>`.
  - The user name can also be specified by using the `COS_ADMIN_USER` environment variable.
- `-k <admin-key>`
  - The authorization key (password) of the user.
  - The key can also be specified by using the `COS_ADMIN_KEY` environment variable.
- `-h/- --help <subcommand>`
  - Display help information for the specified subcommand.

- `-v/- --verbose`
  - Display detailed information as part of the output.
- `subcommand <options>`
  - The subcommands include `-l/list`, `-sa/set-account`, `-su/set-user`, `-g/get`, `-i/info`, `-d/delete`.
  - Each subcommand is associated with a set of relevant options. Table E-1 lists the subcommands and their options.

**Table E-1** *cos-swauth Subcommands and Their Options*



Subcommand/Option	Description
<b><code>-l/list</code></b>	
No account specified	List the accounts for the specified admin user.
<code>&lt;account&gt;</code>	List the users belonging to the specified account.
<b><code>-sa/set-account</code></b>	
<code>&lt;account&gt;</code>	Create or update the specified account.
<code>-s/- --suffix</code>	Specify the suffix to be used in creating an account ID. If a suffix is not provided, a random UUID will be used.
	 <b>Note</b> A suffix may only be specified for new accounts.
<code>-e/- --endpoint &lt; name&gt;:[&lt;IP&gt;]</code> <code>[-t/- --type &lt;service type&gt;]</code>	Specify a service endpoint for the account. If the IP address is omitted, the specified endpoint will be deleted. For the reserved endpoint name <b>default</b> , the name of the default endpoint for the service type must be specified instead of the IP address. If unspecified, the service type will default to <b>storage</b> .
<b><code>-su/set-user</code></b>	
<code>&lt;user&gt;</code>	Create or update the details of the specified user.
<code>-K/- --key &lt;user key&gt;</code>	Specify the user's key (password). This option can be used by admin or reseller-admin users to assign a password to a new user. It can also be used by existing users to change their password.
<code>-A/- --admin</code>	Assign the user admin privileges for the specified account. Account admins can create, delete, or modify users within an account, and have admin privilege in the services associated with the account. The user privileges default to <code>-N/- --normal</code> if <code>-A/- --admin</code> and <code>-R/- --reseller_admin</code> options are omitted.

Table E-1 *cos-swauth Subcommands and Their Options*

Subcommand/Option	Description
-R/- --reseller_admin	Assign the user reseller-admin privileges for the COS cluster. Reseller-admins can create, delete, or modify accounts, and have all the privileges of an account admin in the accounts defined in the COS authentication service. The user privileges default to -N/- --normal if -A/- --admin and -R/- --reseller_admin options are omitted.
-N/- --normal	Specify that the user has no special privileges for the specified account. This option can also be used to withdraw the existing privileges of a user. The user privileges default to -N/- --normal if a privilege option is not specified.
<b>-g/get</b>	
<account>:<user>	Get an authentication token and storage service URL for the specified user.
-K/- --key <user key>	Specify the user's key (password). This option may be omitted if the user does not have a key.
-e/- --endpoint	Retrieve the service endpoint catalog associated with the user account.
<b>-i/info</b>	
<account>	Retrieve account information, including the service endpoint catalog.
<account>:<user>	Retrieve detailed user information.
<b>-d/delete</b>	
<account>	Delete the specified account.
	 <b>Note</b> Only an empty account can be deleted.
<account>:<user>	Delete the specified user.

## cos-swift

The `cos-swift` CLI utility can be used to manage storage accounts, storage containers, and storage objects in a COS cluster. This utility has the following form:


```
cos-swift [-t <auth-token>] [-a <storage-url>] [-v/- --verbose][--h/- --help <subcommand>]
[<subcommand <options>]
```

You can use the following parameters with this utility:


- -t <auth-token>
  - The authentication token returned by the `cos-swauth get` operation.

- The authentication token can also be specified by using the COS\_AUTH\_TOKEN environment variable.
- -a <storage-url>
  - The storage URL returned by the **cos-swauth get** operation.
  - The storage URL can also be specified by using the COS\_STORAGE\_URL environment variable .
- -v/- --verbose
  - Display detailed information as part of the output.
- -h/- --help <subcommand>
  - Display help information for the specified subcommand.
- sub-command <options>
  - The subcommands include **-i/info**, **-l/list**, **-s/set**, **-g/get**, **-u/update**, **-d/delete**.
  - Each subcommand is associated with a set of relevant options. [Table E-2](#) lists the subcommands and their options.


**Table E-2** *cos-swift Subcommands and Their Options*

Subcommand/Option	Description
<b>-i/info</b>	
No container or object specified.	Display metadata for the storage account in the storage URL.
<container name>	Display metadata for the specified storage container.
<container name>/<object name>	Display metadata for the specified storage object.
<b>-l/list</b>	
No container specified.	List the containers of the storage account in the storage URL.
<container name>	List the objects of the specified storage container.
<container name>/<object path>	Form a prefix by appending a slash to the specified object path if the path does not end with a slash. Then, list the objects of the specified storage container whose names have this prefix.
<b>-L/- --limit &lt;value&gt;</b>	Restrict the number of entries listed to less than or equal to the specified value.
<b>-m/- --marker &lt;value&gt;</b>	List the storage containers or objects with names greater than the specified marker value.
<b>-e/- --end_marker &lt;value&gt;</b>	List the storage containers or objects with names less than the specified marker value.
<b>-p/- --prefix &lt;value&gt;</b>	List the storage containers or objects whose names begin with the specified prefix.
<b>-d/- --delimiter &lt;character&gt;</b>	List the storage containers or objects whose names do not have the specified delimiting character.
	
<b>Note</b>	If the <b>-p/- --prefix &lt;value&gt;</b> option is used, the delimiting character may be present in the specified prefix.

**Table E-2** *cos-swift Subcommands and Their Options*

Subcommand/Option	Description
-V/- --Verbose	If no container name is specified, display the metadata of the containers belonging to the storage account in the storage URL. For each container, the container name, the number of subordinate objects, and the total content size of all subordinate objects are displayed.  If a container name is specified, display the metadata of the objects in that storage container. For each object, the object name, MD5 checksum, content type, content size, and modification timestamp are displayed.
<b>-s/set</b>	
<container name>	Create a container with the specified name.
<container name>/<object name>	Create an object with the specified name within the mentioned container.
-m/- --meta <name>:<value>	Create a custom metadata item with the specified name and value. This option may be repeated multiple times.
-r/- --read <ACL>	Specify a read access control list (ACL) for a container. Specifying an empty string ("") as the ACL will cause the existing ACL to be deleted.
-w/- --write <ACL>	Specify a write access control list (ACL) for a container.
-f/- --file <name>	Upload the named file as object content. If an existing object is specified, this file will replace prevailing object content.
-T/- --type <content type>	Specify the content type of an object. The specified content type must be a valid mime type.
<b>-u/update</b>	
No container or object specified.	Update the metadata of the storage account in the storage URL.
<container name>	Update the metadata of the specified container.
<container name>/<object name>	Update the metadata of the specified object in the container.
-m/- --meta <name>:<value>	Create a custom metadata item with the specified name and value. This option may be repeated multiple times.
-r/- --read <ACL>	Specify a read access control list (ACL) for a container. Specifying an empty string ("") as the ACL will cause the existing ACL to be deleted.
-w/- --write <ACL>	Specify a write access control list (ACL) for a container.
<b>-g/get</b>	
<container name>/<object name>	Retrieve the content of the specified object.
-f/- --file <name>	Store the retrieved object content in the specified file.
	 <b>Note</b> If this option is not used and file is not specified, the object content will be directed to stdout.
<b>-d/delete</b>	

**Table E-2** *cos-swift Subcommands and Their Options*

<b>Subcommand/Option</b>	<b>Description</b>
<container name>	Delete the specified container.  <b>Note</b> Only an empty container can be deleted.
<container name>/<object name>	Delete the specified object.