1 Bosh CheatSheet   Tools

- PDF Link: cheatsheet-bosh-A4.pdf, Category: tools

- Blog URL: `https://cheatsheet.dennyzhang.com/cheatsheet-bosh-A4`

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1.1 Bosh Concepts

Name	Comment
Bosh Director	The Director is the orchestrator of deployments.
Bosh Addon	A release job that is colocated on all VMs managed by the Director.
Bosh Agent	A process that runs continuously on each VM that BOSH deploys. one Agent process per VM
Cloud ID (CID)	ID returned from the Cloud identifying particular resource such as VM or disk.
Stemcells	A generic VM image that BOSH clones and configures during deployment. link: stemcell
Deployment	An encapsulation of software and configuration that BOSH can deploy to the cloud.
Jobs	
Tile	
Release	
Bosh Errand	A short-lived job that can be triggered by an operator any time after the deploy.
Bosh Event	Actions taken by the Director (via user or system control) are recorded as events
Manifest	A YAML file that identifies one or more releases, stemcells and configurations
Operations file (ops file)	A YAML file that includes multiple operations to be applied to a different YAML file.
Director Blobstore	A repository where BOSH stores release artifacts, logs, stemcells, and other content, etc
BBR (bosh-backup-and-restore)	link: bosh-backup-and-restore
Bosh Jumpbox	A VM that acts as a single access point for the Director and deployed VMs.
bbl (bosh-bootloader)	GitHub: bosh-bootloader
Link	`https://bosh.io/docs/terminology`

1.2 Bosh Basic

Name	Command
bosh	`apt install bosh-cli`, link: pivotal bosh command
Interpolates variables	`bosh int /tmp/build/4dc76cXXX/pks-lock/metadata --path=/ops_manager/username` link
Delete a deployment	`bosh delete-deployment -d wf-deployment-0-7-0-dev-4`
bosh log	`/var/vcap/bosh/log`
List all bosh deployments	`bosh -n deployments`
Download log files	`bosh -d $deployment_id logs`
Show deployment manifest	`bosh manifest -d $deployment`
bosh config	`bosh cloud-config`, `bosh configs`
List environment	`bosh env`, `bosh env --json`
List all instances	`bosh instances`
Get vms per deployment	`bosh -e $env -d $deployment vms`, `bosh instances`
Cloud consistency check	`bosh cloud-check -d $deployment`
List disks	`bosh disks -o`

1.3 Bosh VM

Name	Command
List vms	`bosh vms`
Delete a vm	`bosh delete-vm -d service-instance_c4b06291-XXX 35043957-XXX`
SSH to vm	`bosh -e 192.168.30.52 -d $deployment ssh $vm`

1.4 Bosh Deployment

Name	Command
List bosh deployments	`bosh deployments`
Delete bosh deployment	`bosh -n -d <deployment> delete-deployment --force`
Get deployment manifest yaml	`bosh manifest -d <deployment> > my.yaml`
Run bosh deployment from yaml	`bosh deploy -d <deployment> my.yaml`

1.5 Bosh Tasks

Name	Command
List recent tasks	`bosh tasks --recent`
Attach to current task	`bosh task -a`
Get task by id	`bosh task $id`
Get task detail msg	`bosh task $id --debug`
SSH to vm	`bosh -d $deployment_name ssh $instance_name`
Get all logs for a deployment	`bosh logs -d $deployment_name`
Get log for one vm	`bosh logs -d $deployment_name $instance_name`
List bosh events	`bosh events`

1.6 Bosh Release

Name	Command
List release	`bosh -n releases`
Release folder	`/var/tempest/releases`
Create a local release	`bosh create-release --tarball=myrelease-0.4.0.tgz`
Inspect a release	`bosh inspect-release <my-release>/<release-version>`
Export a release	`bosh -d <deployment> export-release <my-release>/<release-version> ubuntu-trusty`
Delete release	`bosh -n delete-release <my-release>/<release-version> --force`
Upload release	`bosh -n upload-release /tmp/my-release-0.22.0.tgz`
Create a release from directory	`bosh init-release --dir <my-release>`

1.7 Bosh Manifest

Name	Command
Show bosh manifest	`bosh manifest -d <deployment>` link: manifest

1.8 Bosh Errand

Name	Command
List errands	`bosh errands -d <deployment>`
Run errand in a new vm	`bosh -n -d <deployment> run-errand <errand_name>` link: run-errand
Run errand in a new vm with env alive	`bosh -n -d <deployment> run-errand <errand_name> --keep-alive`
Run errand in an existing vm	`bosh -n -d <deployment> run-errand <errand_name> --instance=worker/instan`

1.9 Bosh Stemcell

Name	Command
Upload stemcell	`bosh -n upload-stemcell /tmp/stemcell.tgz`
List stemcells	`bosh -n stemcells`

1.10 Bosh Tile

Name	Command
Forms Reference	https://docs.pivotal.io/tiledev/2-1/product-template-reference.html#form-properties
Example	example-product/metadata/example-product.yml.erb
Product Template Reference	https://docs.pivotal.io/tiledev/2-2/product-template-reference.html
Property Reference	https://docs.pivotal.io/tiledev/2-2/property-reference.html
Tile Generator	https://docs.pivotal.io/tiledev/2-1/tile-generator.html
stemcells	https://bosh.io/stemcells/, Download link

1.11 Bosh related Tools

Name	Comment
kiln	Kiln helps you maintain tile metadata. link
monit: List bosh deployed daemon processes	monit summary
monit: Restart a given daemon processes	monit restart <process_name>

1.12 Ops manager

Name	Command
Release folder	/var/tempest/releases
Restart Ops Manager	service tempest-web stop/start
Change file permission for your release	chown tempest-web:tempest-web /var/tempest/releases/<your-release.tgz>
Tile entrance file	/var/tempest/workspaces/default/metadata/*.yml
Tile jobs folder	/var/vcap/jobs

1.13 Online Help Usage

```
kubo@jumper:~$ bosh --help
Usage:
  bosh [OPTIONS] <command>

Application Options:
  -v, --version         Show CLI version
      --config=         Config file path (default: ~/.bosh/config) [$BOSH_CONFIG]
  -e, --environment=    Director environment name or URL [$BOSH_ENVIRONMENT]
      --ca-cert=        Director CA certificate path or value [$BOSH_CA_CERT]
      --sha2            Use SHA256 checksums [$BOSH_SHA2]
      --parallel=       The max number of parallel operations (default: 5)
      --client=         Override username or UAA client [$BOSH_CLIENT]
      --client-secret=  Override password or UAA client secret [$BOSH_CLIENT_SECRET]
  -d, --deployment=     Deployment name [$BOSH_DEPLOYMENT]
      --column=         Filter to show only given column(s)
      --json            Output as JSON
      --tty             Force TTY-like output
      --no-color        Toggle colorized output
  -n, --non-interactive Don't ask for user input [$BOSH_NON_INTERACTIVE]

Help Options:
  -h, --help            Show this help message

Available commands:
  add-blob              Add blob                                      https://bosh.io/docs/cli-v2#add-b
  alias-env             Alias environment to save URL and CA certificate  https://bosh.io/docs/cli-v2#alias
  attach-disk           Attaches disk to an instance                  https://bosh.io/docs/cli-v2#attac
  blobs                 List blobs                                    https://bosh.io/docs/cli-v2#blobs
  cancel-task           Cancel task at its next checkpoint            https://bosh.io/docs/cli-v2#cance
  clean-up              Clean up releases, stemcells, disks, etc.     https://bosh.io/docs/cli-v2#clean
  cloud-check           Cloud consistency check and interactive repair  https://bosh.io/docs/cli-v2#cloud
  cloud-config          Show current cloud config                     https://bosh.io/docs/cli-v2#cloud
  config                Show current config for either ID or both type and name https://bosh.io/docs/cli-v2#
```

```
configs              List configs                                    https://bosh.io/docs/cli-v2#confi
cpi-config           Show current CPI config                         https://bosh.io/docs/cli-v2#cpi-c
create-env           Create or update BOSH environment               https://bosh.io/docs/cli-v2#creat
create-release       Create release                                  https://bosh.io/docs/cli-v2#creat
delete-config        Delete config                                   https://bosh.io/docs/cli-v2#delet
delete-deployment    Delete deployment                               https://bosh.io/docs/cli-v2#delet
delete-disk          Delete disk                                     https://bosh.io/docs/cli-v2#delet
delete-env           Delete BOSH environment                         https://bosh.io/docs/cli-v2#delet
delete-release       Delete release                                  https://bosh.io/docs/cli-v2#delet
delete-snapshot      Delete snapshot                                 https://bosh.io/docs/cli-v2#delet
delete-snapshots     Delete all snapshots in a deployment            https://bosh.io/docs/cli-v2#delet
delete-stemcell      Delete stemcell                                 https://bosh.io/docs/cli-v2#delet
delete-vm            Delete VM                                       https://bosh.io/docs/cli-v2#delet
deploy               Update deployment                               https://bosh.io/docs/cli-v2#deplo
deployment           Show deployment information                     https://bosh.io/docs/cli-v2#deplo
deployments          List deployments                                https://bosh.io/docs/cli-v2#deplo
diff-config          Diff two configs by ID                          https://bosh.io/docs/cli-v2#diff-
disks                List disks                                      https://bosh.io/docs/cli-v2#disks
environment          Show environment                                https://bosh.io/docs/cli-v2#envir
environments         List environments                               https://bosh.io/docs/cli-v2#envir
errands              List errands                                    https://bosh.io/docs/cli-v2#erran
event                Show event details                              https://bosh.io/docs/cli-v2#event
events               List events                                     https://bosh.io/docs/cli-v2#event
export-release       Export the compiled release to a tarball        https://bosh.io/docs/cli-v2#expor
finalize-release     Create final release from dev release tarball   https://bosh.io/docs/cli-v2#final
generate-job         Generate job                                    https://bosh.io/docs/cli-v2#gener
generate-package     Generate package                                https://bosh.io/docs/cli-v2#gener
help                 Show this help message                          https://bosh.io/docs/cli-v2#help
ignore               Ignore an instance                              https://bosh.io/docs/cli-v2#ignor
init-release         Initialize release                              https://bosh.io/docs/cli-v2#init-
inspect-release      List release contents such as jobs              https://bosh.io/docs/cli-v2#inspe
instances            List all instances in a deployment              https://bosh.io/docs/cli-v2#insta
interpolate          Interpolates variables into a manifest          https://bosh.io/docs/cli-v2#inter
locks                List current locks                              https://bosh.io/docs/cli-v2#locks
log-in               Log in                                          https://bosh.io/docs/cli-v2#log-i
log-out              Log out                                         https://bosh.io/docs/cli-v2#log-o
logs                 Fetch logs from instance(s)                     https://bosh.io/docs/cli-v2#logs
manifest             Show deployment manifest                        https://bosh.io/docs/cli-v2#manif
orphan-disk          Orphan disk                                     https://bosh.io/docs/cli-v2#orpha
recreate             Recreate instance(s)                            https://bosh.io/docs/cli-v2#recre
releases             List releases                                   https://bosh.io/docs/cli-v2#relea
remove-blob          Remove blob                                     https://bosh.io/docs/cli-v2#remov
repack-stemcell      Repack stemcell                                 https://bosh.io/docs/cli-v2#repac
reset-release        Reset release                                   https://bosh.io/docs/cli-v2#reset
restart              Restart instance(s)                             https://bosh.io/docs/cli-v2#resta
run-errand           Run errand                                      https://bosh.io/docs/cli-v2#run-e
runtime-config       Show current runtime config                     https://bosh.io/docs/cli-v2#runti
scp                  SCP to/from instance(s)                         https://bosh.io/docs/cli-v2#scp
snapshots            List snapshots                                  https://bosh.io/docs/cli-v2#snaps
ssh                  SSH into instance(s)                            https://bosh.io/docs/cli-v2#ssh
start                Start instance(s)                               https://bosh.io/docs/cli-v2#start
stemcells            List stemcells                                  https://bosh.io/docs/cli-v2#stemc
stop                 Stop instance(s)                                https://bosh.io/docs/cli-v2#stop
sync-blobs           Sync blobs                                      https://bosh.io/docs/cli-v2#sync-
take-snapshot        Take snapshot                                   https://bosh.io/docs/cli-v2#take-
task                 Show task status and start tracking its output  https://bosh.io/docs/cli-v2#task
tasks                List running or recent tasks                    https://bosh.io/docs/cli-v2#tasks
unignore             Unignore an instance                            https://bosh.io/docs/cli-v2#unign
update-cloud-config  Update current cloud config                     https://bosh.io/docs/cli-v2#updat
```

```
update-config          Update config                      https://bosh.io/docs/cli-v2#updat
update-cpi-config      Update current CPI config          https://bosh.io/docs/cli-v2#updat
update-resurrection    Enable/disable resurrection        https://bosh.io/docs/cli-v2#updat
update-runtime-config  Update current runtime config      https://bosh.io/docs/cli-v2#updat
upload-blobs           Upload blobs                       https://bosh.io/docs/cli-v2#uploa
upload-release         Upload release                     https://bosh.io/docs/cli-v2#uploa
upload-stemcell        Upload stemcell                    https://bosh.io/docs/cli-v2#uploa
variables              List variables                     https://bosh.io/docs/cli-v2#varia
vendor-package         Vendor package                     https://bosh.io/docs/cli-v2#vendo
vms                    List all VMs in all deployments    https://bosh.io/docs/cli-v2#vms
```

```
Succeeded
```

1.14   More Resources

```
https://github.com/bosh-tips/tips
```
    http://engineering.pivotal.io/post/compiled-releases-for-pipelines/
    License: Code is licensed under MIT License.