

# CheatSheet: VMware Nimbus

## VMWARE

- PDF Link: [cheatsheet-nimbus-A4.pdf](#), Category: VMware
- Blog URL: <https://cheatsheet.dennyzhang.com/cheatsheet-nimbus-A4>
- Related posts: Prometheus CheatSheet, Nagios CheatSheet, #denny-cheatsheets

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## 1.1 Nimbus Basic

Name	Summary
Nimbus	VMware's internal vSphere based cloud written in Ruby
Nimbus Cloud	Nimbus cloud contains a lot of ESX hosts. Nimbus Pods can seen as data centers.
Nimbus Pod	It is created during a vSphere setup, after setup, it contains one VC and associated ESX hosts.
Nimbus Site	Each site is a separate Nimbus cloud with all of its peripherals. Currently we have: SC and WDC
nimbus-ctl	Ruby CLI for vmomi client
All nimbus tools	/mts/git/bin/nimbus*

<https://raw.githubusercontent.com/dennyzhang/cheatsheet.dennyzhang.com/master/cheatsheet-nimbus-A4/nimbus.png>

## 1.2 vsphere resource

Name	Summary
Data center	
Resource pool	
VM folder	
Host group	
vcs	
dvs	

## 1.3 Nimbus CLI

Name	Summary
List Testbed	/mts/git/bin/nimbus-ctl --testbed list
List all VMs of one testbed	/mts/git/bin/nimbus-ctl --testbed list \$testbed_name
Destroy a testbed/VM	/mts/git/bin/nimbus-ctl --testbed kill \$testbed_name
Extend lease of a testbed	/mts/git/bin/nimbus-ctl --lease 5 --testbed extend-lease \$testbed_name
List ip of all VMs	/mts/git/bin/nimbus-ctl ip
Choose nimbus location	NIMBUS_LOCATION=wdc /mts/git/bin/nimbus-ctl ip
Specify nimbus userid	USER=someusername /mts/git/bin/nimbus-ctl list
List all snapshot	NIMBUS=\${POD} /mts/git/bin/nimbus-ctl -testbed list-snapshot
Take snapshot for a testbed	NIMBUS=sc-prd-vc012 /mts/git/bin/nimbus-ctl -outputPath=\$HOME screenshot denny-snapsho
Take snapshot for a testbed	NIMBUS=\${POD} /mts/git/bin/nimbus-ctl -testbed -snapshotIncludeMemory -snapshot \$snapsh
Take snapshot for a vm	NIMBUS=\${POD} /mts/git/bin/nimbus-ctl -snapshotIncludeMemory -snapshot \$snapshotname
Revert all snapshot	NIMBUS=\${POD} /mts/git/bin/nimbus-ctl -testbed -snapshot \$snapshotname revert-snapshot \$
Reference	Gitlab: nimbus
Reference	CheatSheet: VMware Govmomi, CheatSheet: VMware Nimbus

## 1.4 Deploy Workload In Nimbus

Name	Summary
Nimbus testbed spec file	A json/ruby spec file to setup on-demand nimbus testbed.
List Supported VM Templates	/mts/git/bin/nimbus-genericdeploy --list
Deploy with a spec file	/mts/git/bin/nimbus-testbeddeploy --testbedSpecRubyFile testbed_iscsi.rb --run
Deploy NSX Manager	/mts/git/bin/nimbus-nsxmdeploy --lease 7 --nsxBuild ob-7946221 nsxm-ob-7946221
Deploy NSX Controller	/mts/git/bin/nimbus-nsxcdeploy --lease 7 --nsxBuild ob-7946221 nsxc-ob-7946221
Deploy NFS with 1 mount point	/mts/git/bin/nimbus-nfsdeploy --disk 134217728 --mountPoint /storage-1 cbrc-nfs
Deploy: 1 vcva, 2 ESX, 2 iscsi	Sample: testbed-iscsi.rb
Deploy: 1 vsan	Sample: testbed-vsan.rb
Deploy Concourse	Sample: Deploy a Concourse Instance on Nimbus
Reference	Link: TestbedSpec, Demo: Deploy Your First Nimbus Testbed
Reference	Link: Logic of part of Nimbus-testbeddeploy code

## 1.5 nimbus tools

```
-bash-4.1$ ls -lt /mts/git/bin/nimbus*
-rwxr-xr-x 1 syncer mts      137 Dec 10 17:27 /mts/git/bin/nimbus-nsx-auto-edge-deploy
-rwxr-xr-x 1 syncer mts      133 Nov 19 22:32 /mts/git/bin/nimbus-nsxTsrms-deploy
-rwxr-xr-x 1 syncer mts      129 Nov 19 22:32 /mts/git/bin/nimbus-vmip-retrieve
-rwxr-xr-x 1 syncer mts      129 Sep 29 2018 /mts/git/bin/nimbus-tbspec-search
-rwxr-xr-x 1 syncer mts      134 Aug 16 2018 /mts/git/bin/nimbus-srmphoton-deploy
-rwxr-xr-x 1 syncer mts      125 Jul 20 2018 /mts/git/bin/nimbus-racetrack
-rwxr-xr-x 1 syncer mts      134 Jun 13 2018 /mts/git/bin/nimbus-srm-vr-jenkin-job
-rwxr-xr-x 1 syncer mts      127 Jun 13 2018 /mts/git/bin/nimbus-vr-deploy
-rwxr-xr-x 1 syncer mts      133 Jan  4 2018 /mts/git/bin/nimbus-post-deployer-def
-rwxr-xr-x 1 syncer mts      128 Dec 20 2017 /mts/git/bin/nimbus-ldap-dump-pg
-rwxr-xr-x 1 syncer mts      144 Nov 20 2017 /mts/git/bin/nimbus-ucp-deploy
-rwxr-xr-x 1 syncer mts      609 Aug 20 2017 /mts/git/bin/nimbusvc-base
-rwxr-xr-x 1 syncer mts      139 Aug 17 2017 /mts/git/bin/nimbus-setup-master
-rwxr-xr-x 1 syncer mts      192 Jul  3 2017 /mts/git/bin/nimbus-testbed-clone
-rwxr-xr-x 1 syncer mts      141 Jul  3 2017 /mts/git/bin/nimbus-vca-wanopt-deploy
-rwxr-xr-x 1 syncer mts      144 Jun 12 2017 /mts/git/bin/nimbus-worker-deploy
-rwxr-xr-x 1 syncer mts 33791680 Jan 30 2017 /mts/git/bin/nimbus_recommend
-rwxr-xr-x 1 syncer mts      3394 Dec 16 2016 /mts/git/bin/nimbus-vropsloginsight-test-launcher
-rwxr-xr-x 1 syncer mts      205 Oct 31 2016 /mts/git/bin/nimbus
-rwxr-xr-x 1 syncer mts      185 Oct 31 2016 /mts/git/bin/nimbus-testbeddeploy
-rwxr-xr-x 1 syncer mts      185 Oct 31 2016 /mts/git/bin/nimbus-test-launcher
-rwxr-xr-x 1 syncer mts      185 Oct 31 2016 /mts/git/bin/nimbus-vcqa-launcher
-rwxr-xr-x 1 syncer mts      125 Oct 30 2016 /mts/git/bin/nimbus-ldap-dump
-rwxr-xr-x 1 syncer mts      135 Sep 27 2016 /mts/git/bin/nimbus-failure-investigate
-rwxr-xr-x 1 syncer mts      145 Aug 31 2016 /mts/git/bin/nimbus-fiaasco-deploy
-rwxr-xr-x 1 syncer mts      127 Jun  8 2016 /mts/git/bin/nimbus-srm-install
-rwxr-xr-x 1 syncer mts      134 Jun  8 2016 /mts/git/bin/nimbus-srmtestbed-deploy
-rwxr-xr-x 1 syncer mts      138 Jun  7 2016 /mts/git/bin/nimbus-vca-cgw-deploy
-rwxr-xr-x 1 syncer mts      134 May 13 2016 /mts/git/bin/nimbus-vcsa-inbox-upgrade
-rwxr-xr-x 1 syncer mts      148 May  4 2016 /mts/git/bin/nimbus-one-cloud-esxdeploy
-rwxr-xr-x 1 syncer mts      148 May  4 2016 /mts/git/bin/nimbus-one-cloud-vcvadeploy
-rwxr-xr-x 1 syncer mts      132 Mar 31 2016 /mts/git/bin/nimbus-post-config-hdrs
-rwxr-xr-x 1 syncer mts      127 Mar  2 2016 /mts/git/bin/nimbus-vum-install
-rwxr-xr-x 1 syncer mts      131 Feb  2 2016 /mts/git/bin/nimbus-quick-pod-setup
-rwxr-xr-x 1 syncer mts      130 Jan 28 2016 /mts/git/bin/nimbus-upgrade-ciswin
-rwxr-xr-x 1 syncer mts      136 Jan 22 2016 /mts/git/bin/nimbus-vrdeploy
-rwxr-xr-x 1 syncer mts      142 Dec 23 2015 /mts/git/bin/nimbus-vcopsdeploy
-rwxr-xr-x 1 syncer mts      138 Dec 23 2015 /mts/git/bin/nimbus-vcg-deploy
-rwxr-xr-x 1 syncer mts      127 Dec  9 2015 /mts/git/bin/nimbus-post-config
-rwxr-xr-x 1 syncer mts      155 Nov 21 2015 /mts/git/bin/nimbus-hostdsim-deploy
-rwxr-xr-x 1 syncer mts      149 Nov  9 2015 /mts/git/bin/nimbus-vrops-deploy
-rwxr-xr-x 1 syncer mts      145 Nov  3 2015 /mts/git/bin/nimbus-nsxcdeploy
-rwxr-xr-x 1 syncer mts      142 Nov  3 2015 /mts/git/bin/nimbus-nsxmdeploy
```

-rwxr-xr-x	1	syncer	mts	146	Oct	26	2015	/mts/git/bin/nimbus-vnimbus-deploy
-rwxr-xr-x	1	syncer	mts	125	Sep	8	2015	/mts/git/bin/nimbus-debug-esx
-rwxr-xr-x	1	syncer	mts	144	Aug	2	2015	/mts/git/bin/nimbus-sampledeploy
-rwxr-xr-x	1	syncer	mts	129	May	12	2015	/mts/git/bin/nimbus-testesxdeploy
-rwxr-xr-x	1	syncer	mts	138	May	12	2015	/mts/git/bin/nimbus-testesxdeploy-launcher
-rwxr-xr-x	1	syncer	mts	155	Apr	24	2015	/mts/git/bin/nimbus-powercli-install
-rwxr-xr-x	1	syncer	mts	146	Apr	23	2015	/mts/git/bin/nimbus-network-deploy
-rwxr-xr-x	1	syncer	mts	142	Apr	8	2015	/mts/git/bin/nimbus-uiplatform-vamiui-test-run
-rwxr-xr-x	1	syncer	mts	714	Mar	24	2015	/mts/git/bin/nimbus-rvc
-rwxr-xr-x	1	syncer	mts	148	Mar	16	2015	/mts/git/bin/nimbus-mobagent-deploy
-rwxr-xr-x	1	syncer	mts	142	Mar	16	2015	/mts/git/bin/nimbus-fakepmdeploy
-rwxr-xr-x	1	syncer	mts	146	Feb	18	2015	/mts/git/bin/nimbus-vra-deploy
-rwxr-xr-x	1	syncer	mts	138	Feb	2	2015	/mts/git/bin/nimbus-vcddeploy
-rwxr-xr-x	1	syncer	mts	138	Jan	28	2015	/mts/git/bin/nimbus-vsmdeploy
-rwxr-xr-x	1	syncer	mts	140	Jan	28	2015	/mts/git/bin/nimbus-vcdeploy-cat
-rwxr-xr-x	1	syncer	mts	138	Jan	28	2015	/mts/git/bin/nimbus-vcvadeploy
-rwxr-xr-x	1	syncer	mts	138	Jan	28	2015	/mts/git/bin/nimbus-psadeploy
-rwxr-xr-x	1	syncer	mts	141	Jan	28	2015	/mts/git/bin/nimbus-vcbench-deploy
-rwxr-xr-x	1	syncer	mts	138	Jan	28	2015	/mts/git/bin/nimbus-pdp-deploy
-rwxr-xr-x	1	syncer	mts	147	Jan	28	2015	/mts/git/bin/nimbus-physical-esxdeploy
-rwxr-xr-x	1	syncer	mts	152	Jan	28	2015	/mts/git/bin/nimbus-loginsightdeploy
-rwxr-xr-x	1	syncer	mts	136	Jan	28	2015	/mts/git/bin/nimbus-fsdeploy
-rwxr-xr-x	1	syncer	mts	138	Jan	20	2015	/mts/git/bin/nimbus-ovfdeploy
-rwxr-xr-x	1	syncer	mts	142	Jan	20	2015	/mts/git/bin/nimbus-iscsideploy
-rwxr-xr-x	1	syncer	mts	168	Jan	12	2015	/mts/git/bin/nimbus-esxdeploy-ob
-rwxr-xr-x	1	syncer	mts	146	Jan	6	2015	/mts/git/bin/nimbus-genericdeploy
-rwxr-xr-x	1	syncer	mts	138	Jan	6	2015	/mts/git/bin/nimbus-esxdeploy
-rwxr-xr-x	1	syncer	mts	138	Dec	29	2014	/mts/git/bin/nimbus-nfsdeploy
-rwxr-xr-x	1	syncer	mts	130	Aug	6	2014	/mts/git/bin/nimbus-ovftool-deploy
-rwxr-xr-x	1	syncer	mts	132	Aug	4	2014	/mts/git/bin/nimbus-docker-ovfdeploy
-rwxr-xr-x	1	syncer	mts	140	Jul	30	2014	/mts/git/bin/nimbus-uiplatform-icui-test-run
-rwxr-xr-x	1	syncer	mts	139	Jul	30	2014	/mts/git/bin/nimbus-uiplatform-vui-test-run
-rwxr-xr-x	1	syncer	mts	119	Jul	19	2014	/mts/git/bin/nimbus-ctl
-rwxr-xr-x	1	syncer	mts	129	Jul	19	2014	/mts/git/bin/nimbus-hostdsim-kill
-rwxr-xr-x	1	syncer	mts	127	Jul	19	2014	/mts/git/bin/nimbus-nimbussetup
-rwxr-xr-x	1	syncer	mts	121	Jul	19	2014	/mts/git/bin/nimbus-touch
-rwxr-xr-x	1	syncer	mts	132	Jul	18	2014	/mts/git/bin/nimbus-hostdsim-prepare
-rwxr-xr-x	1	syncer	mts	124	Jul	18	2014	/mts/git/bin/nimbus-test-esx
-rwxr-xr-x	1	syncer	mts	127	Jul	17	2014	/mts/git/bin/nimbus-config-util
-rwxr-xr-x	1	syncer	mts	121	Jul	3	2014	/mts/git/bin/nimbus-vmserial
-rwxr-xr-x	1	syncer	mts	135	Jun	19	2014	/mts/git/bin/nimbus-vc-upgrade-and-test
-rwxr-xr-x	1	syncer	mts	129	May	29	2014	/mts/git/bin/nimbus-h5-run-testng
-rwxr-xr-x	1	syncer	mts	133	May	29	2014	/mts/git/bin/nimbus-hostclient-deploy
-rwxr-xr-x	1	syncer	mts	130	May	29	2014	/mts/git/bin/nimbus-ngc-run-testng
-rwxr-xr-x	1	syncer	mts	137	May	29	2014	/mts/git/bin/nimbus-uiplatform-run-testng
-rwxr-xr-x	1	syncer	mts	133	May	29	2014	/mts/git/bin/nimbus-vcd-supportbundle
-rw-r--r--	1	syncer	mts	128	May	29	2014	/mts/git/bin/nimbus-vcva-upgrade
-rwxr-xr-x	1	syncer	mts	133	May	29	2014	/mts/git/bin/nimbus-vc-windows-deploy
-rwxr-xr-x	1	syncer	mts	133	May	29	2014	/mts/git/bin/nimbus-vsm-supportbundle
-rwxr-xr-x	1	syncer	mts	137	May	19	2014	/mts/git/bin/nimbus-analyze-supportbundle
-rwxr-xr-x	1	syncer	mts	128	May	14	2014	/mts/git/bin/nimbus-physical-ctl
-rwxr-xr-x	1	syncer	mts	134	Aug	14	2013	/mts/git/bin/nimbus-autoinstalls
-rwxr-xr-x	1	syncer	mts	202	Apr	22	2013	/mts/git/bin/nimbus-legacy-rvc
-rwxr-xr-x	1	syncer	mts	155	Apr	21	2011	/mts/git/bin/nimbus-vim-cat-launcher
-rwxr-xr-x	1	syncer	mts	130	Feb	18	2011	/mts/git/bin/nimbus-clui
-rwxr-xr-x	1	syncer	mts	147	Feb	18	2011	/mts/git/bin/nimbus-ddt-esx
-rwxr-xr-x	1	syncer	mts	107	Feb	18	2011	/mts/git/bin/nimbus-rlui
-rwxr-xr-x	1	syncer	mts	143	Feb	18	2011	/mts/git/bin/nimbus-vc
-rwxr-xr-x	1	syncer	mts	130	Jan	11	2011	/mts/git/bin/nimbusvc-clui

```
-rwxr-xr-x 1 syncer mts      127 Jan 11  2011 /mts/git/bin/nimbusvc-vcdeploy
```

## 1.6 nimbus-ctl CLI Online Help

```
-bash-4.1$ /mts/git/bin/nimbus-ctl --help
Control VMs in the Nimbus cloud.
```

Usage:

```
nimbus-ctl [options] cmd <vm-names|testbed-name>
```

Commands: list tools\_status tools-status host\_name host-name on off kill reset destroy suspend is\_on is-on ip  
screenshot console vc\_supportbundle vc-supportbundle esx\_supportbundle esx-supportbundle hostdsim\_supportbund  
genericvm\_supportbundle genericvm-supportbundle workervm\_supportbundle workervm-supportbundle samplevp\_support  
vcdb\_errorlogbundle vcdb-errorlogbundle vcdb\_dbcopy vcdb-dbcopy vcdb\_dbdump vcdb-dbdump dumpstats associated\_  
nfsvm-supportbundle create\_snapshot create-snapshot list\_snapshot list-snapshot revert\_snapshot revert-snapsh  
get-extra-cfg set\_ovf\_params set-ovf-params shutdown rename vropsvm\_supportbundle vropsvm-supportbundle tag s

VMs could be:

1. One or multiple vm names, for example:

```
nimbus-ctl kill vm1          # to kill vm1
nimbus-ctl kill vm1 vm2      # to kill vm1 and vm2
```

2. Wildcards vm name, for example:

```
nimbus-ctl kill '*'          # to kill all VMs
nimbus-ctl kill '*esx*'      # to kill all VMs whose name contain 'esx'
```

To control a testbed:

1. List all testbeds

```
nimbus-ctl --testbed list
```

2. Destroy a testbed

```
nimbus-ctl --testbed kill testbed-name
```

3. Extend lease of a testbed

```
nimbus-ctl --lease 5 --testbed extend-lease testbed-name
```

Other options:

-d, --debug	Log SOAP messages
-o, --outputPath=<s>	Path to put stuff in
-p, --path=<s>	Folder Path to search the VM
-f, --filename=<s>	Name of the file generated (applicable to support bundles)
-i, --file-prefix=<s>	Name of the file generated without the extension (applicable to support bund
-l, --lease=<f>	Days to extend the lease by
-u, --username=<s>	Authentication info for VM operations
-a, --password=<s>	Authentication info for VM operations
--vimUsername=<s>	Since VC6.0, VIM uses different credantial from VM guest, this option is use
--vimPassword=<s>	Since VC6.0, VIM uses different credantial from VM guest, this option is use
-b, --bora=<s>	
-T, --dbType=<s>	This option is used to specify the DB type for the commands vcdb-logbundle a
-m, --nimbus=<s>	nimbus pod name
-e, --excludedPod=<s>	exclusion pod for operation
-c, --context=<s>	nimbus pod context

```

-s, --nimbusConfigFile=<s>      nimbus pod config json file
-h, --snapshot=<s>              Name of snapshot
-I, --snapshotIncludeMemory     Whether to include memory dump in snapshot. This option only works with crea
-t, --testbed                   Control testbeds instead of VMs
-n, --nsx                       Control NSX networks
-v, --vxlanDetail               Show vxlan parameters
-r, --hoursToKeepVM=<i>         Number of hours to keep the VM after test fails. (Default: 12)
-w, --allowShorten              Allow hoursToKeepVM is less than lease time
-K, --autoKeptOnly              Only kill auto-kept CAT testbed.
--hoststats                     Dump physical host stats alongwith VM stats
--startTime=<s>                 Start time of task or event: mm/dd/yyyy hh:mm:ss
--endTime=<s>                   End time of task or event: mm/dd/yyyy hh:mm:ss
--nestedVmIp=<s>                Nested VM IP address. This option could be used to collect support bundle di
--osFamily=<s>                  This option only works with --nestedVmIp.When a VM IP is specified, this opt
--console-option=<s>            Operations for 'console' command. Possible options: vnc_view, web_view, remo
-F, --outputFormat=<s>          Specify results format for output. Supported Formats: text,json,yaml (defau
-N, --templateName=<s>          Template name. It's same as VM name if not specified
-P, --templatePath=<s>          Folder Path to save the template (default: /templates)
--newName=<s>                   New vm name
-g, --add-tag=<s>                Tag to be added to the VM
--remove-tag=<s>                Tag to be removed from the VM
--tag=<s>                       Tag to filter VMs
-k, --universalNetwork         Control Cross-vCenter vxLAN. This option only works with --nsx.
-R, --cpuReservation=<i>        CPU reservation in MHz. This option only works with --set-reservation.
-y, --memoryReservation=<i>     Memory reservation in MB. This option only works with --set-reservation.
-M, --clearMemReservation       Clear memory reservation. This option only works with --clear-reservation.
-C, --clearCpuReservation       Clear CPU reservation. This option only works with --clear-reservation.
-x, --vnicIndex=<i>             The 1-based vnic index to operate on
--vxlans=<s>                    Comma separated list of vxlan-backed networks
-O, --trunkOp=<s>                trunk operation
-L, --nimbusLocation=<s>        Run Nimbus on specified datacenter, available datacenters are ["sc", "wdc",
--silentObjectNotFoundError     No exception will be raised if no vm found, will only print a log
--bootOrder=<s>                 Comma separated list of boot devices (e.g. 'hdd,eth')
--disk=<i>                       Additional disk size in KB. Repeat this option for as many disks you want to
-D, --pvscsiDisk=<i>            Additional pvscsi disk size in KB. Repeat this option for as many disks you
--user=<s>                       User to which VM should be transferred
--help                           Show this message

```

## 1.7 nimbus-testbeddeploy CLI Online Help

```

-bash-4.1$ /mts/git/bin/nimbus-testbeddeploy --help
Allocate testbeds in the Nimbus cloud.

```

Usage:

```

nimbus-testbeddeploy [options]

```

Notes:

- 1) The whole options for the command are not listed here, as they are specific to underlying deploy commands,
- 2) It depends on a testbed spec that which options are required. For example, if a vcva is specified in a spe

Test Run Related Options:

```

=====

```

```

--deployedDynamicWorkerName    Name of the deployed dynamic worker
--psodurl                       Url to monitor psod status
--resultsDir                    Directory to put results into (default: random in /tmp)
--resultsurl                    Target url to update the running result
--test                          Specify which test to run by name
--testrunid                     Run id of the test
--updateurl                     Upstream site's url to update running status

```

## Testbed Deployment Options:

=====

--arg	Additional arguments
--customizeTestbed	This option can be used to modify testbed spec in a very generic way. You can specify a test framework plugin to not load. This provide a way to avoid loading a plugin that is not needed. Nodes can be selected multiple ways e.g. '*' will select all nodes in testbed. This option can be used to customize dynamic worker in a generic way, e.g. 'worker1' use this option as many times as you need
--customizeWorker	This option can be used to customize dynamic worker in a generic way, e.g. 'worker1' use this option as many times as you need
--disableNatAfterPostboot	Disable NAT on gateway VM. It only works with --isolated-testbed option.
--enablePingVm	Enable ping vms within the testbed
--excludePlugin	Specify a test framework plugin to not load. This provide a way to avoid loading a plugin that is not needed.
--existingTestbed	Existing testbed to use
--failureTypeToKeepVms	Type of test fails when VMs need to be kept. Valid types are FAIL, INVALID, SUCCESS
--fake	Fake run, won't actually deploy vms
--forceCleanTestbed	If set, testbed will be destroyed. This option will override --keepVmsOnFailure
--gateway	Specify public IP of gateway VM. This option only works with --vxlan option.
--gencov	VC or ESX code coverage flag. E.g. --gencov esx --gencov vc will do code coverage for esx and vc
--gencovConfigFile	Specify the VC/ESX code coverage config file. Currently only needed when do ESX code coverage
--hoursToKeepVms	Number of hours to keep VMs after test fails. Maximum to keep VMs for 24 hours
--isolated-testbed	Deploy the testbed in vxlan that is created on the fly.
--keepVmsOnFailure	If set, VMs will be kept if the test fails
--list	List all testbeds
--nimbusResourcePool	Use a specific resource pool
--noPreparedTemplates	Do not use prepared templates to speed up deployment
--noStatsDump	Do not dump testbed stats no matter deployment success or fail
--plugin	Specify a test framework plugin to load. This provide a way to avoid loading a plugin that is not needed.
--pluginsLocation	Specify a location where test framework plugin are located at. This way user can specify a location where test framework plugin are located at.
--runName	A prefix adding to the names of vms deployed. It is required unless --list option is used
--testbedName	Specify the name of the testbed to deploy
--testbedParams	Additional parameters accessible in testbed's postBoot block
--testbedSpecJsonFile	Specify a json testbed spec file
--testbedSpecRubyFile	Specify a ruby testbed spec file
--viewSpecOnly	View testbed spec definition only. Do not really deploy a testbed
--vxlan	Specify a vxlan to deploy the testbed on it. The vxlan will replace public network
--xvcTestbed	Distribute testbed to different pods

## VM Deployment Options:

=====

--affinitizeTestbed	Affinitize all (except VC) VMs of the testbed to locate on same host. Be careful if high throughput among VMs are required.
--annotation	Specify annotation for the VMs
--bootTimeout	Boot time (in sec) after which to give up if the deployed VM didn't come up.
--catMachine	The value should be either a CAT Machine (integer), the CAT Machine name or a json object <pre>{   "id": "any id",   "macaddrs": ["e8:39:35:ae:6a:68", "e8:39:35:ae:6a:69"],   "hostname": "hostname-allocated-by-techops"   "childmodel": {     "ilo_hostname": "10.20.96.109",     "ilo_username": "vmware",     "ilo_password": "vmware123",     "suite_location": "PromC"   } }</pre>
--ciswinSettingsJsonFile	File path for ciswin settings
--cleanPxeDir	Clean image in pxe dir
--context	Nimbus pod context
--disableFirewall	Sends commands to disable the firewall in the VM

<code>--disableTCPOffload</code>	Sends commands to change the TCP Offload in the windows VM
<code>--domainLocator</code>	A locator for the domain, in the format of domain://<User>:<Password>@<Domain>
<code>--dynamicWorkerTemplate</code>	Template of dynamic worker and worker-template by default
<code>--enableFirewall</code>	Sends commands to enable the firewall in the VM
<code>--enableIPv6</code>	Enable IPv6
<code>--esx:force</code>	Use The --force
<code>--esx:hostprofilePath</code>	Host profile path for stateless ESX
<code>--esx:hostprofileVMLocation</code>	Host profile VM location for stateless ESX
<code>--esx:scriptBundle</code>	Startup scripts tgz file path for stateless ESX
<code>--esx:systemRescue</code>	PXE Boot the host with Linux System Rescue CD. May be used in conjunction with <code>--esx:scriptBundle</code> /dbc/pa-dbc1106/mfurman/public_html/sysrescue
<code>--esx:wipeAllDisks</code>	Wipes ALL partitions on ALL disks. Requires --force. USE WITH CAUTION
<code>--esx:wipeAndDeploy</code>	Wipe the host before deploying. Parameter is the pxeDir that will be used for deployment
<code>--esx:wipeVsanDisks</code>	Wipes VSAN disks. USE WITH CAUTION
<code>--esxCount</code>	Number of ESX
<code>--existingIsolatedNetwork</code>	Full path of an existing isolated network's JSON result file. This allows to reuse an existing network
<code>--existingUniversalNetwork</code>	JSON file which has existing universal vxlan spec for deploying testbed
<code>--forceAutoVC</code>	Force automatic determination of the VC product
<code>--hostdsim:noNfs</code>	Do not deploy NFS VM for Host Simulator
<code>--hwVer</code>	Virtual hardware version, specified as an integer (e.g. 8). Value 0 implies latest
<code>--hwimMachine</code>	The value should be either a Hwim Machine ID/UUID (format: 8-4-4-4-12), the Hwim Machine ID/UUID, or a Hwim Machine Name { "id": "any id", "macaddrs":["e8:39:35:ae:6a:68", "e8:39:35:ae:6a:69"], "hostname": "hostname-allocated-by-techops" "childmodel": { "ilo_hostname":"10.20.96.109", "ilo_username":"vmware", "ilo_password":"vmware123", "suite_location":"PromC" } }
<code>--ip6AddressType</code>	Type of ipv6 address (static_no_dns, static_with_dns, slaac, link_local)
<code>--job-delay-mins</code>	Waiting time in minute to schedule this job.
<code>--job-schedule-at</code>	When to schedule this job, like 2016-11-01 12:34
<code>--lease</code>	Lease in days
<code>--loginsight_ovfdesc</code>	Destination Loginsight OVF url
<code>--maxRuntimeHint</code>	How long the user is willing to wait (in minutes) (default: 1.5h)
<code>--mergeLdu</code>	Whether merging ldu
<code>--network</code>	Names of networks to use
<code>--nicType</code>	Type of NIC (e1000, e1000e, vmxnet3)
<code>--nics</code>	Number of NICs
<code>--nimbus</code>	Specify which Nimbus pod to use by name
<code>--nimbusConfigFile</code>	Specify the path of config file
<code>--nimbusLocation</code>	Run Nimbus on specified datacenter, available datacenters are ["sc", "wdc", "lax"]
<code>--noSchedulerNotification</code>	Whether to send email after scheduler job finishes.
<code>--oneCloud</code>	Deploy the testbed to OneCloud.
<code>--powershellVCInstall</code>	Indicates that the powershell installer should be used
<code>--product</code>	Build product
<code>--pxe-base-dir</code>	Shared folder to save pxe image instead of user home dir
<code>--queue</code>	Schedule this job.
<code>--queue-ttl</code>	Scheduler job TTL (in hour). (default: 1.0)
<code>--remote-nimbus-root</code>	Specify Nimbus root for remote execution (e.g. execution inside dynamic worker)
<code>--scheduler-job-id</code>	Scheduler job ID.
<code>--scheduler-job-launched-url</code>	Url for updating scheduler job 'launched' state.
<code>--scheduler-job-reason</code>	The reason for scheduling a job, such as final result(INVALID, TIMEOUT) or error
<code>--scheduler-job-result-url</code>	Url for reporting scheduler job error.
<code>--settingsJsonFile</code>	Used to specify a json file for installation parameters
<code>--standaloneVCInstall</code>	Indicates that the standalone installer should be used (default)

--stress	used to set the stress options for the ciswin firstboot
--stressMaxRange	used to set the maximum delay range for the stress ciswin firstboot (seconds)
--templateName	Specify the VM template to use
--timeout	Time (in seconds) after which to give up the deployment
--universalNetwork	Deploy the testbed in Cross-vCenter vxlan. This option only works with --iso
--useWinVersion	Specifies the base windows VM among win2008r2, win2008, win2012, win2012r2 t
--vcCount	Number of VC
--vcvaSettingsJsonFile	File path for vcva settings
--windowsDomainLocator	A locator for the domain, in the format of domain://<User>:<Password>@<Domain>

## Build Options:

=====

--autodeployServerBuild	Build number for autodeployServer
--build	Build number
--cis_blldir	Build dir for cis
--ciswinBuild	Build number for ciswin
--ciswin_blldir	Build dir for ciswin
--ciswindevngcBuild	Build number for ciswindevngc
--cloudvmBuild	Build number for cloudvm
--cloudvm_blldir	Build dir for cloudvm
--cloudvmdevngcBuild	Build number for cloudvmdevngc
--cloudvmngcBuild	Build number for cloudvmngc
--cloudvmsssoBuild	Build number for cloudvmssso
--cloudvmvcopsBuild	Build number for cloudvmvcops
--cloudvmvimBuild	Build number for cloudvmvim
--esxBoraDir	Bora dir of ESX
--esxBoraHost	Bora Host for ESX
--esxBuild	Build number for esx
--esxPxeDir	Location of the dir for pxe config
--esx_vmtree	vmtree for esx
--hbr_blldir	Build dir for hbr
--hbrsrvBuild	Build number for hbrsrv
--ic-clientBuild	Build number for ic-client
--licensing_blldir	Build dir for licensing
--logInsightBuild	Build number for logInsight
--mobilityagentBuild	Build number for mobilityagent
--ngc_blldir	Build dir for ngc
--ngcinstallerBuild	Build number for ngcinstaller
--nsx-transformersBuild	Build number for nsx-transformers
--nsx_blldir	Build dir for nsx
--phservices_blldir	Build dir for phservices
--platform-services-controllerBuild	Build number for platform-services-controller
--sampleBuild	Build number for sample
--serverBuild	Build number of server product
--sso_blldir	Build dir for sso
--suite-uiBuild	Build number for suite-ui
--testware_blldir	Build dir for testware
--uiplatform_blldir	Build dir for uiplatform
--vcBuild	Build number for vc
--vcde_blldir	Build dir for vcde
--vcenter-allBuild	Build number for vcenter-all
--vcenter-asanBuild	Build number for vcenter-asan
--vcenter-gcc6Build	Build number for vcenter-gcc6
--vcenter-python3Build	Build number for vcenter-python3
--vcenterBuild	Build number for vcenter
--vcenterphotonBuild	Build number for vcenterphoton
--vcentersles12Build	Build number for vcentersles12
--vcenterwindowsBuild	Build number for vcenterwindows
--vcenterwindows_blldir	Build dir for vcenterwindows



--vcenterwindowsdevngcBuild	Build number for vcenterwindowsdevngc
--vcloudBuild	Build number for vcloud
--vcloud_blldir	Build dir for vcloud
--vcops_blldir	Build dir for vcops
--vcqadistBuild	Build of vcqadist
--vcqetestwarezipBuild	Build number for vcqetestwarezip
--vcvaBuild	Build number for vcva
--vcvaBuildDir	Build tree to find cloudvm OVF. e.g. ~/bora/build/. Must use with --vcvaBuild
--vcvaBuildType	Build type (obj/release/beta). Must use with --vcvaBuildDir
--vddkBuild	Build number for vddk
--vimclients-h5clientBuild	Build number for vimclients-h5client
--vimclients-platformBuild	Build number for vimclients-platform
--vimclients-qaBuild	Build number for vimclients-qa
--vm2c_blldir	Build dir for vm2c
--vmc-gatewayBuild	Build number for vmc-gateway
--vmc-gateway_blldir	Build dir for vmc-gateway
--vpxBuild	Build number for vpx
--vpx_blldir	Build dir for vpx
--vpxd-comptests-covBuild	Build number for vpxd-comptests-cov
--vpxd-comptestsBuild	Build number for vpxd-comptests
--vpxdBuild	Build number for vpxd
--vpxd_blldir	Build dir for vpxd
--vraCafeBuild	Build number for vraCafe
--vraSsoBuild	Build number for vraSso
--vropsBuild	Build number for vrops
--vsmBuild	Build number for vsm
--vui-componentsBuild	Build number for vui-components
--wsBuild	Build number for ws
--ws_blldir	Build dir for ws

## Other Options:

=====

--andyPrefix	Andy's Prefix
--andyProducts	Andy's Products
--featureStates	Feature states
--logTriggerFile	Log Trigger files
--logTriggersMode	Possible values are 'off', 'always' or 'onerror'
--nimbusBreakpoint	Enable a named breakpoint in the nimbus code.
--noDefaultLogTriggers	No default Log Triggers
--noSupportBundles	Do not collect support bundles
--pxeBootOption	VMKernel boot option passed to nested ESXi
--umask	Set the umask for having desired permissions on file

## Deprecated Options:

=====

--blldir	Build dir of a product
--cis_vmtree	vmtree for cis
--ciswin_vmtree	vmtree for ciswin
--cloudvm_vmtree	vmtree for cloudvm
--esx_blldir	Build dir for esx
--esxallBuild	Build number of esxall product
--hbr_vmtree	vmtree for hbr
--licensing_vmtree	vmtree for licensing
--location	Build location
--macaddrs	MAC addresses
--ngc_vmtree	vmtree for ngc
--nsx_vmtree	vmtree for nsx
--phservices_vmtree	vmtree for phservices
--sso_vmtree	vmtree for sso

```
--testware_vmtree      vmtree for testware
--uiplatform_vmtree    vmtree for uiplatform
--vcenterwindows_vmtree vmtree for vcenterwindows
--vcloud_vmtree        vmtree for vcloud
--vcops_vmtree         vmtree for vcops
--vm2c_vmtree          vmtree for vm2c
--vmc-gateway_vmtree    vmtree for vmc-gateway
--vpx_vmtree           vmtree for vpx
--vpxd_vmtree          vmtree for vpxd
--ws_vmtree            vmtree for ws
```

## 1.8 nimbus CLI Online Help

```
-bash-4.1$ /mts/git/bin/nimbus --help
```

Nimbus root command

```
-a, --help-all    Recursively get help for all commands
-h, --help         Show this message
```

Available subcommands:

```
deploy : Deploy various vms
ctl : Nimbus-ctl commands to control vms
scheduler : nimbus-scheduler commands to control scheduler jobs
```

## 1.9 More Resources

License: Code is licensed under MIT License.