

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 |
| --vxlangs=<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:

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|--------------------------|--|
| --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 |

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

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| --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:

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|-------------------------------------|---|
| --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 |

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| --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:

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|------------------------|--|
| --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:

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|---------------------|--------------------------------|
| --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.