

Umbrella虚拟设备命令

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简介

本文档介绍Umbrella虚拟设备(VA)的命令。

概述

Umbrella VA运行在Ubuntu操作系统上，这是基于Debian的Linux发行版。在VA的“配置模式”命令行中，客户一般无法使用Linux中的所有命令。相反，VA使用受限的外壳环境，该环境提供许多故障排除/诊断命令以及config命令来更改VA内的相关设置。

有关使用配置模式配置VA的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/5-configuring-the-vas>

本文中的命令从VA软件版本3.4开始都可使用。



注意：命令说明涵盖VA上支持的语法。为许多命令提供了指向第三方资源的链接，用于了解有关命令本身的更多信息。请注意，并非所有Linux命令选项在VA上均受支持。

clear

clear命令会清除终端屏幕。它相当于Windows命令提示符中的“cls”。



注意：这不是用于清除AD映射的命令。

config

config用于配置虚拟设备。配置有九个子命令：

- 隧道
- snmp
- 任播
- va
- ntp
- admap
- 日志导出
- 本地DNS
- 负载均衡器

```

You have entered the Configuration Mode on this VA. Use the 'config' command for any configuration changes.
Type 'help' to get a list of supported commands.
test-VA-1 ~ $ config help
Usage : config <commands> help
      tunnel      for tunnel commands
      snmp        for snmp commands
      anycast     for anycast commands
      va          for Virtual Appliance Configuration.
      ntp         for ntp configuration command
      admap       for admap commands
      logexport   for logexport configuration commands.
      localdns    for localdns configuration commands.
      loadbalancer for configuring LoadBalancer that injects ECS.

```

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1) tunnel子命令用于启用和配置支持隧道，与通过Ctrl+B从VA控制台执行类似。

```

Home-VA-01 ~ $ config tunnel ?
Usage : config tunnel <options> <args>

      options has to be one of the following -

      enable <int>      Enable the config tunnel connection.
      reenabale <int>   ReEnable the config tunnel, if it was disabled.
      disable          Disable the config tunnel connection.
      status           Show status.
      -h, --help       Display this usage information.
      <int> is tunnel duration in hours, default would be 72 hours.

```

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示例命令：

```

config tunnel enable <optional time open, default is 72hrs, range is 7 to 240 hours>
config tunnel reenabale <optional time open, default is 72hrs>
config tunnel disable
config tunnel status

```

有关配置支持隧道的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-d-troubleshooting-the-va-using-a-restricted-shell#tunnel>

2) snmp子命令用于启用和配置SNMP支持。

```
Home-VA-01 ~ $ config snmp ?
Usage : config snmp <options> <args>

options has to be one of the following -

configure      -v2 [ -c <community string> ]
                  Enables SNMP v2
                  * c - Community string; Default public
                  -v3 -u <username> -p <password> [-a [MD5|SHA] -x [AES|DES] -X [password]]
                  Enables SNMP v3 with username and password
                  * u - Username consist of alphanumeric characters up to 32 characters.
                  * p - Password consist of alphanumeric characters 8 to 12 characters.
                  * a - Optional password hash algorithm; Default SHA
                  * x - Optional encryption algorithm; Default AES
                  * X - Privacy password to be used along with AES algorithm.

enable          Enable the SNMP.
disable         Disable the SNMP.
status          Show SNMP service status and Version information.
-h, --help      Display this usage information.
```

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示例命令：

```
config snmp enable
config snmp configure -v2 -c <community string>
config snmp status
```

有关配置SNMP的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-c-enable-snmp-monitoring>

3)anycast子命令用于配置AnyCast BGP。

```

Home-VA-01 ~ $ config anycast ?
Usage : config anycast bgp <options> <args>

    'bgp' options has to be one of the following:

enable <anycast_ip> <bgp_info> : Enable the anycast mode.
disable                          : Disable anycast mode.
status                          : Show status of anycast.
summary                         : Show BGP Summary
stats                           : Show BGP Neighbour statistics
add    <bgp_info>               : Add additional peer routers
delete <router-ip>              : Delete additional peer routers
test                                     : Test anycast connectivity
help                                  : Display this usage information.

args :
anycast_ip : Anycast IP address
bgp_info   : ASN:ROUTER-IP:HOP-COUNT of the BGP router to publish
router-ip  : IP Address of the BGP Router

Range :
HOP-Count : 2 - 255 Default: 255

```

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示例命令：

```

config anycast enable <anycast ip> <ASN:ROUTER-IP:HOP-COUNT of BGP router>
config anycast status
config anycast disable
config anycast stats
config anycast add <ASN:ROUTER-IP:HOP-COUNT of BGP router>
config anycast delete <BGP router IP address>

```

有关配置AnyCast的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#anycast>

4)va子命令用于VA上的所有例行配置。

```

Home-VA-01 ~ $ config va ?

Usage : config va <commands> <args>

    commands has to be one of the following -

```

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```

    interface <interface name> <ipaddress> <netmask> <gateway> : Configure the Interface.
    interface6 <interface name> <ipv6-address>/<prefix> <gw> : Configure the IPv6 address to
Interface
    name <string> : Name of this Virtual Appliance
    show : Show running configuration.
    status : Display the status of this VA.
    ssh [ enable | disable ] : Enable or Disable ssh access to
to VA
    dmz [ enable | disable ] : Enable or Disable DMZ mode to
VA
    ssl [ enable | disable | ( [ key | cert ] "hash" ) ] : Enable or Disable or Add Key a
and cert for HTTPS
    per-ip-rate-limit [ enable <pps> <burst> | disable ] : Configure the Per-IP based Rat
e Limiting to VA
    resolvers [US | US-v6 | global | global-v6 | alternate] : Configure the root resolvers
    dnssec [ enable | disable ] : Enable or Disable DNSSEC for i
nternal domains
    help : Display this usage information
.

args -
ipaddress : Ip Address for the interface
netmask : Netmask for the interface
gateway : Interface gateway ip address
ipv6-address : IPv6 Address for the interface
prefix : Prefix Length for IPv6 address
gw : IPv6 Gateway
hash : ssl/tls hash
interface name : Name of the interface should be given when dual nic is enabled Ex: eth0,
ens32
pps : Number of packets to be accepted per second for per IP. Range [ 10 - 10000
]
burst : Packet Burst rate. Range [ 10 - 100 ]

```

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示例命令：

```

config va status
config va name <New name for the VA>
config va interface <interface name> <ip address> <subnet mask> <gateway>
config va interface6 <interface name> <IPv6 address/prefix> <IPv6 gateway>
config va show
config va ssh enable
config va dmz enable
config va dnssec enable
config va per-ip-rate-limit enable <packets/sec> <burst rate>

```

有关配置速率限制的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#section-configure-rate-limiting>

有关配置DNSSEC支持的详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#section-configure-dnssec-support>

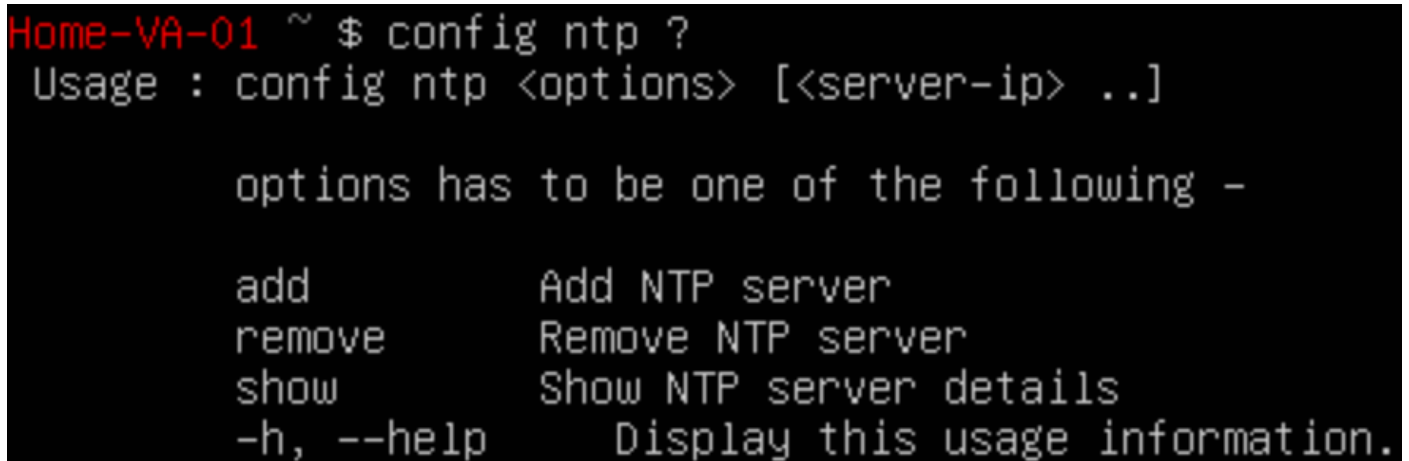
也可以使用resolvers子命令将VA配置为使用特定解析程序，这些选项可用：

```
config va resolvers US (Uses 208.67.221.76 and 208.67.223.76)
```

```
config va resolvers US-v6 (Uses 2620:119:17::76 and 2620:119:76::76)
config va resolvers global (Uses 208.67.220.220 and 208.67.222.222)
config va resolvers global-v6 (Uses 2620:119:35::35 and 2620:119:53::53)
config va resolvers alternate (Uses 208.67.222.220 and 208.67.220.222)
```

有关详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#section-configure-umbrella-resolvers>

5)ntp子命令可用于在VA上定义自定义NTP服务器。



```
Home-VA-01 ~ $ config ntp ?
Usage : config ntp <options> [<server-ip> ..]

options has to be one of the following -

add          Add NTP server
remove       Remove NTP server
show         Show NTP server details
-h, --help   Display this usage information.
```

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示例命令：

```
config ntp add <New NTP server>
config ntp show
```

有关详细信息，请参阅<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#section-configure-ntp-servers>

6)admap子命令是用于配置身份关联超时以及查看或清除AD映射的命令。此时，只能清除单个IP地址的映射。当前没有从受限制外壳中清除所有AD映射的方法。

```
Home-VA-01 ~ $ config admap ?
```

```
Usage : config admap <commands> <args>
```

```
commands has to be one of the following -
```

```
view <ipaddress>           : view AD Mapping for IP address.  
clear <ipaddress>          : clear AD Mapping for IP address.  
set-host-timeout <time>    : set timeout for the host in seconds.  
set-user-timeout <time>    : set timeout for the user in seconds.  
show-timeout               : Display the host/user timeout.  
help                       : Display this usage information.
```

```
args -
```

```
ipaddress : Ip Address  
time      : time in seconds
```

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示例命令：

```
config admap view <ip address>  
config admap clear <ip address>  
config admap set-user-timeout 28800 (This would set it for 8hrs)  
config admap show-timeout
```

有关更多信息，请参阅：

<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#identity>

有关其他信息，请参阅以下知识库文章：

[虚拟设备：管理/删除缓存的AD用户](#)

[虚拟设备：调整用户缓存设置](#)

7)logexport子命令用于将审核日志、运行状况日志和/或内部DNS请求日志导出到远程系统日志服务器。

```
test-VA-1 ~ $ config logexport help
Usage : config logexport <options> <args>

options has to be one of the following -

destination <rsyslog-ip:port> [tcp|udp|tls]    Add destination to send logs to remote server.
enable <service>                               Enable the service to send logs to destination.
disable <service>                             Disable the service.
[key|cert|ca] "hash"                          Add key, cert or CA hash for TLS
status                                         Show logexport status.
-h, --help                                     Display this usage information.

args:
service : internaldns | health | audit | all
```

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有关更多信息，请参阅：

<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#syslog>

localdns子命令用于配置内部域到特定内部DNS服务器的条件转发。它是3.2版的新增版本。

```
test-VA-1 ~ $ config localdns help
Usage : config localdns <commands> <args>

commands has to be one of the following -

add <server-ip> <domains ... > : Add new localdns server and map the domains
remove <server-ip>              : Delete a localdns server
show                            : Show current localdns server-domain mapping

args -
server-ip      : IPv4/IPv6 address for the localdns
domains        : List of domains to be mapped to particular internal dns server.
                  Default value is all-internal-domains (domains configured in dashboard)
```

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有关详细信息，请运行“config localdns help”或查看：

<https://docs.umbrella.com/deployment-umbrella/docs/6-local-dns-forwarding>

9)loadbalancer子命令用于配置注入ECS的LoadBalancer。它是3.3版的新增版本。

```
test-VA-1 ~ $ config loadbalancer help
Usage : config loadbalancer <commands> <args>

commands has to be one of the following -

add <server-ip/prefix>          : Add new loadbalancer server
remove <server-ip/prefix>       : Delete a loadbalancer server
show                            : Show existing loadbalancers

args -
server-ip/prefix : IPv4/IPv6 address for the loadbalancer (or) subnet/prefix_length
                  Only loadbalancers that inject the source IP in the EDNS Client Subnet Field
                  of the DNS query are supported.
                  VA supports a maximum of 8 Load Balancer configurations.
```

有关详细信息，请运行“config loadbalancer help”或查看：

<https://docs.umbrella.com/deployment-umbrella/docs/appendix-e-other-configurations#section-configure-load-balancing>

日期

date命令可用于在VA中打印当前系统时间/日期。时间以协调世界时(UTC)返回。无法重新配置日期、时间和时区。

```
test-VA-1 ~ $ date
Wed Dec  8 23:03:01 UTC 2021
test-VA-1 ~ $
```

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df

df命令可用于显示VA的当前磁盘利用率。

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/df.1.html>

```
Home-VA-01 ~ $ df
Filesystem      1K-blocks    Used Available Use% Mounted on
udev            497232         4    497228   1% /dev
tmpfs           101564        876    100688   1% /run
/dev/sda1       2030736 1144928    764604  60% /
none              4           0         4   0% /sys/fs/cgroup
none            5120          0      5120   0% /run/lock
none           507808          0    507808   0% /run/shm
none           102400          0    102400   0% /run/user
/dev/sda4       2030768  316300   1593260  17% /data
```

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执行

execute命令在更新的版本3.4.6中可用

使用率:execute <commands>

命令必须是以下其中一项：

force_upgrade :执行“disk_cleanup”>立即重新下载新的VA映像>强制VA升级。

disk_cleanup :删除VA映像、升级错误文件和Azure扩展名 (未删除任何日志)。

免费

free命令显示系统中的可用内存和已用内存量。

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/free.1.html>

```
Home-VA-01 ~ $ free
              total        used        free      shared  buff/cache   available
Mem:          1015616      518656      195716          172       301244       335340
Swap:           522108       131052       391056
```

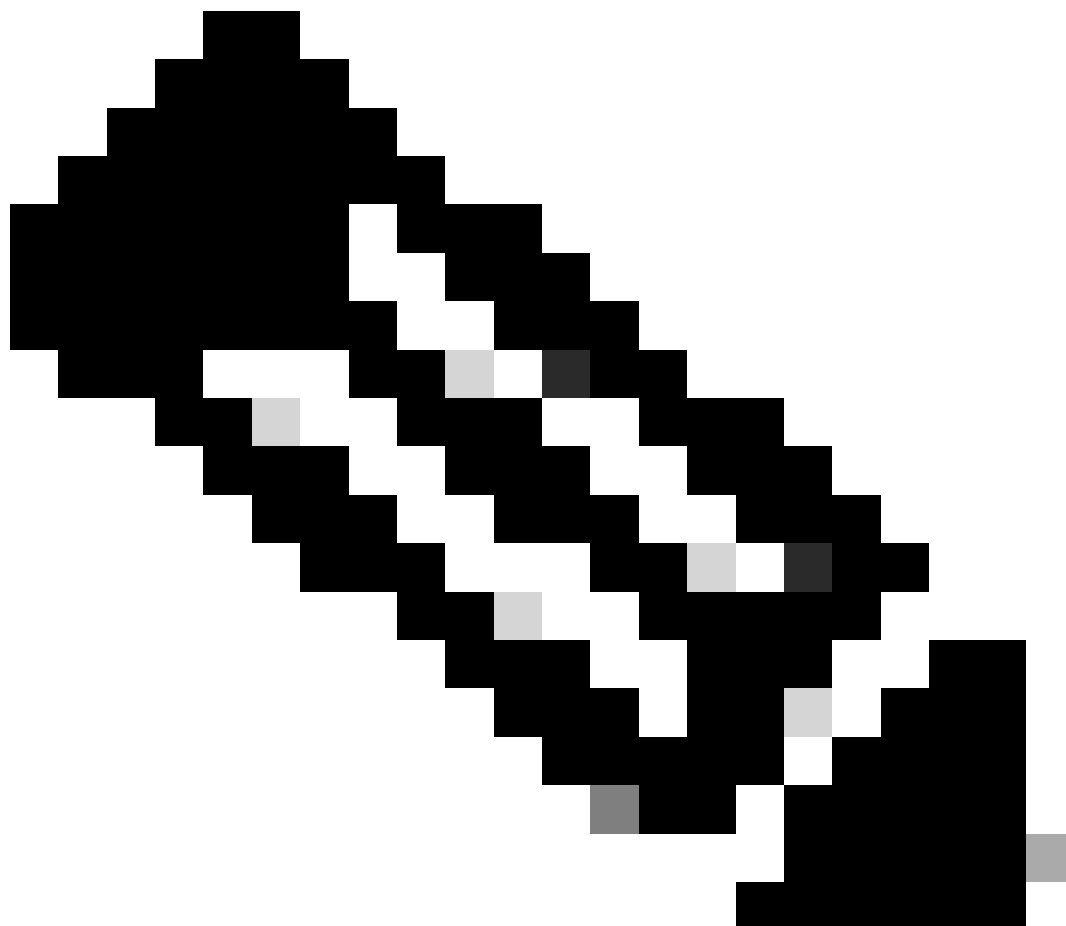
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帮助

帮助可用于显示受限外壳环境中用户可用的所有命令。

```
Home-VA-02 ~ $ help
Following is the list of commands available
clear config date df free help iostat netstat nslookup passwd ping ping6 tcptraceroute tr
aceroute traceroute6 version
```

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注意：虽然支持帮助，但man不支持，因此您需要调出所需的任何手册页。

本文顶部包含各个可用命令的链接。

iostat

iostat显示设备和分区的CPU统计信息和输入/输出统计信息。

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/iostat.1.html>

```
Home-VA-01 ~ $ iostat
Linux 4.8.0-53-generic (forwarder)      08/30/19      _x86_64_      (2 CPU)

avg-cpu:  %user   %nice %system %iowait  %steal   %idle
           0.47    0.00    0.47    0.01    0.00   99.04

Device:            tps    kB_read/s    kB_wrtn/s    kB_read    kB_wrtn
sda                 0.79         1.07         5.84    3463273    18971540
sdb                 0.00         0.00         0.00         406         0
```

netstat

netstat会打印网络连接、路由表、接口统计信息、伪装连接和组播成员身份。

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man8/netstat.8.html>

```
Home-VA-01 ~ $ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State
tcp        0      0 forwarder:42753         forwarder:domain        TIME_WAIT
tcp        0      0 192.168.1.223:19331     192.168.1.221:domain    TIME_WAIT
tcp        0      0 192.168.1.223:10221     resolver4.opendn:domain TIME_WAIT
tcp        0      0 forwarder:ssh           forwarder:54991          ESTABLISHED
tcp        0      0 192.168.1.223:36857     192.168.1.222:domain    TIME_WAIT
tcp        0      0 192.168.1.223:22499     resolver3.opendn:domain TIME_WAIT
tcp        0      0 192.168.1.223:18479     146.112.255.101:https   TIME_WAIT
tcp        0      0 192.168.1.223:33123     resolver1.opendn:domain TIME_WAIT
tcp        0      0 forwarder:54991         forwarder:ssh            ESTABLISHED
tcp        0      0 192.168.1.223:28423     resolver2.opendn:domain TIME_WAIT
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags               Type           State         I-Node  Path
unix    2      [ ]                 DGRAM                    10612    /var/spool/postfix/dev/log
unix    7      [ ]                 DGRAM                    10611    /dev/log
unix    3      [ ]                 STREAM            CONNECTED       60456416
unix    3      [ ]                 DGRAM                    10616
unix    3      [ ]                 STREAM            CONNECTED       10700    @/com/ubuntu/upstart
unix    3      [ ]                 STREAM            CONNECTED       10578    @/com/ubuntu/upstart
unix    2      [ ]                 DGRAM                    60456413
unix    3      [ ]                 STREAM            CONNECTED       9499
unix    3      [ ]                 STREAM            CONNECTED       10698
unix    2      [ ]                 DGRAM                    60455600
unix    3      [ ]                 DGRAM                    10615
unix    3      [ ]                 STREAM            CONNECTED       60456417
unix    2      [ ]                 DGRAM                    11419
unix    2      [ ]                 DGRAM                    60432351
unix    3      [ ]                 STREAM            CONNECTED       10555    @/com/ubuntu/upstart
unix    2      [ ]                 DGRAM                    60296865
unix    3      [ ]                 STREAM            CONNECTED       10551
```

nslookup

nslookup用于以交互方式查询Internet域名服务器。命令结构与Windows、Mac和Linux的命令结构匹配。

```
nslookup <domain>
```

使用此语法运行查找会导致VA将查询发送到我们的公共解析器而不是发送到其自身。为了成功执行内部域的查找，您需要指定内部DNS服务器：

nslookup <Internal Domain> <Internal DNS Server IP>

要从VA对自身运行内部或外部查找，请按以下方式运行：

nslookup <domain> 127.0.0.1

```
test-VA-1 ~ $ nslookup www.internetbadgirls.com.
Server:      127.0.0.1
Address:     127.0.0.1#53

Non-authoritative answer:
Name:   www.internetbadgirls.com
Address: 146.112.198.95
Name:   www.internetbadgirls.com
Address: ::ffff:146.112.198.95

test-VA-1 ~ $ nslookup www.examplemalwaredomain.com. 192.168.1.201
Server:      192.168.1.201
Address:     192.168.1.201#53

Non-authoritative answer:
Name:   www.examplemalwaredomain.com
Address: 146.112.61.107
Name:   www.examplemalwaredomain.com
Address: ::ffff:146.112.61.107

test-VA-1 ~ $ nslookup www.examplebotnetdomain.com. 127.0.0.1
Server:      127.0.0.1
Address:     127.0.0.1#53

Non-authoritative answer:
Name:   www.examplebotnetdomain.com
Address: 146.112.61.105
Name:   www.examplebotnetdomain.com
Address: ::ffff:146.112.61.105
```

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有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/nslookup.1.html>

passwd

passwd用于重置VA密码。语法如下：

passwd

然后系统将提示您输入旧密码，然后输入新密码（两次）。或者，您可以通过Umbrella控制面板将密码重置为默认值，详情请见[此处](#)。

```
test-VA-1 ~ $ passwd
Changing password for vmadmin.
Current password:
New password:
Retype new password:
passwd: password updated successfully
```

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ping

ping命令用于测试连接，语法再次与Windows、Mac和Linux中的语法匹配。可用选项如下所示。

```
home-VA-01 ~ $ ping
Usage: ping [-aAbBdDfhLnOqrRUvV] [-c count] [-i interval] [-I interface]
          [-m mark] [-M pmtudisc_option] [-l preload] [-p pattern] [-Q tos]
          [-s packetsize] [-S sndbuf] [-t ttl] [-T timestamp_option]
          [-w deadline] [-W timeout] [hop1 ...] destination
```

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最常见的使用方式通常如下：

```
ping -c 4 <Domain or IP>
```

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/ping.1.html>

ping6

ping6命令用于测试与IPv6终端的连接，语法再次与Windows、Mac和Linux中的语法匹配。可用选项如下所示。

```
home-VA-02 ~ $ ping6
Usage: ping6 [-aAbBdDfhLnOqrRUvV] [-c count] [-i interval] [-I interface]
          [-l preload] [-m mark] [-M pmtudisc_option]
          [-N nodeinfo_option] [-p pattern] [-Q tclass] [-s packetsize]
          [-S sndbuf] [-t ttl] [-T timestamp_option] [-w deadline]
          [-W timeout] destination
```

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最常见的用法如下：

```
ping6 -c 4 <Domain or IPv6 address>
```

有关详细信息，请参阅<http://manpages.ubuntu.com/manpages/focal/en/man1/ping6.1.html>

reboot

reboot命令可重新启动VA。系统会提示您确认重新启动（Y =是）或取消重新启动（N =否）。

```
test-VA-1 ~ $ reboot
Do you want to reboot the VA: Y/N: _
```

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tcptraceroute

tcptraceroute发送功能与标准traceroute命令基本相同，但它使用TCP数据包，而不是标准UDP或ICMP数据包。

```
test-VA-1 ~ $ tcptraceroute www.cisco.com
Selected device ens160, address 192.168.1.101, port 32877 for outgoing packets
Tracing the path to www.cisco.com (23.77.71.127) on TCP port 80 (http), 30 hops max
 1 192.168.1.1 0.723 ms 0.340 ms 0.542 ms
 2 8.21.15.1 1.256 ms 0.923 ms 0.874 ms
 3 * * *
 4 * * *
 5 * * *
 6 a23-77-71-127.deploy.static.akamaitechnologies.com (23.77.71.127) [open] 3.393 ms 3.059 ms 2.774 ms
```

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有关详细信息，请参阅

[:https://manpages.ubuntu.com/manpages/focal/man1/tcptraceroute.mt.1.html](https://manpages.ubuntu.com/manpages/focal/man1/tcptraceroute.mt.1.html)

traceroute

traceroute可用于测试不同网络上的两个终端之间的UDP和ICMP连接，并提供有关它们之间的每一跳的信息。

最常见的用法如下：

traceroute <domain or IP>

```
test-VA-1 ~ $ traceroute www.cisco.com
traceroute to www.cisco.com (23.77.71.127), 30 hops max, 60 byte packets
 1 * * *
 2 * * *
 3 * * *
 4 * * *
 5 * * *
 6 * * *
 7 * * *
 8 * * *
 9 * * *
10 * * *
11 * * *
12 * * *
13 * * *
14 * * *
15 * * *
16 * * *
17 * * *
18 * * *
19 * * *
20 * * *
21 * * *
22 * * *
23 * * *
24 * * *
25 * * *
26 * * *
27 * * *
28 * * *
29 * * *
30 * * *
test-VA-1 ~ $ _
```

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有关详细信息，请参阅

<https://manpages.ubuntu.com/manpages/focal/en/man1/traceroute.db.1.html>

traceroute6

traceroute6可用于测试不同网络上的两个IPv6终端之间的UDP和ICMP连接，并提供有关它们之间的每一跳的信息。

有关详细信息，请参阅

<https://manpages.ubuntu.com/manpages/focal/man8/traceroute6.iputils.8.html>

正常运行时间

uptime命令显示当前时间、VA已运行的时间、当前登录的用户数以及过去1、5和15分钟的系统负载平均值。

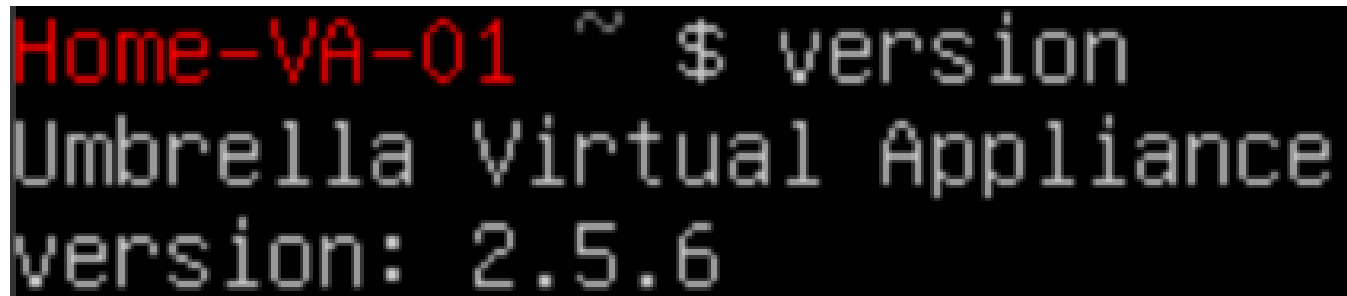
```
test-VA-1 ~ $ uptime
23:25:33 up 42 days, 23:40,  2 users,  load average: 0.04, 0.20, 0.21
```

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有关详细信息，请参阅<https://manpages.ubuntu.com/manpages/focal/en/man1/uptime.1.html>

version

version会将当前版本的VA软件打印到屏幕。此信息也可从VA控制台获得。



```
Home-VA-01 ~ $ version
Umbrella Virtual Appliance
version: 2.5.6
```

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关于此翻译

思科采用人工翻译与机器翻译相结合的方式将此文档翻译成不同语言，希望全球的用户都能通过各自的语言得到支持性的内容。

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