AerohiveNetworks Inc.

qos Test Plan

Revision History

|  |  |  |  |
| --- | --- | --- | --- |
| Version | Date | Author | Description |
| 0.1 | 01/12/2012 | Linda Knudstrup | Initial version |
|  |  |  |  |
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Glossary and Abbreviations

# Introduction

Feature FS can be found on Knowledge Tree: http://kt.aerohive.com/view.php?fDocumentId=

# TestObjectives

This feature is planned to be – and was - delivered in alpha2 2011-12-30 casablanca.

The goal is to validate feature functionality on both HiveOS and HiveManager (configuration). Testing shall also provide customer and negative scenarios.

|  |  |  |
| --- | --- | --- |
| Feature name | Description | CLI/Info |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

# Test Acceptance Criterion from Development

* Approved – Functional Specifications
  + http://kt.aerohive.com/view.php?fDocumentId=
* Approved – Unit Test Plans
  + http://kt.aerohive.com/view.php?fDocumentId=

# Product Pass Criterion

Feature testing is considered pass when test result meets the requirement defined in the expected result field. The expected result field is defined by the requirements stated in the functional specification and/or MRD; whichever is stricter; plus additional quality and usability expectations set by the test engineer.

# Test Bed Topology

=== topology ===

HM

|

|- - - - - - - - corporate / inter net - - - eth0 cvg-dsl eth1

tun0

| |

64.81.246.198/22

| up down 400 kpbs |

wan sip server

10.16.\_.\_/24

iperf server

------

bg-100 shortel server

------

chariot server

lan 10.16.128.232

192.168.82.1/24

| sip tftp server

| 10.16.140.232

192.168.82.142/24

eth0

ppp0

tun0

----------------

br-100 OR br-200

----------------

eth1 eth2

mgt0 172.18.23.129

mgt0.11 10.16.150.177/24

| |

| |

10.16.150.\_/24 10.16.150.178/24

sip laptop

phone soft phone

chariot client

sip wireless laptop wireless

phone

10.16.150.204/24 10.16.150.203/24 <- tcp -> 10.16.140.232

=== when use 3g modem

HM

|

|- - - - - - - - corporate / inter net - - - eth0 cvg-dsl eth1

tun0

| |

64.81.246.198/22

| |

| sip server

| iperf server

| shortel server

| chariot server

10.16.128.232

|

ppp0 10.169.11.5

tun0

----------------

br-100 OR br-200

----------------

eth1 eth2

mgt0 172.18.9.129

mgt0.11 10.16.150.177/24

| |

| |

10.16.150.179/24 10.16.150.178/24

sip laptop

phone soft phone

chariot client

to change from wired to wireless:

ssid sqa-qos

lk-0d40#sh run | in ssid

ssid sqa-01

ssid sqa-01 security-object sqa-01

ssid sqa-01 multicast conversion-to-unicast auto

ssid sqa-qos

ssid sqa-qos security-object sqa-01

interface wifi0 ssid sqa-01

interface wifi0 ssid sqa-qos

lk-0d40#

security mode AKM

802.11 mode auto

=== qos test plan and set up ===

br-100 br-200 wp

sip phone tried tried

sip wireless tried

shortel phone

sccp wireless

br-100 pantech br-200 wp momentum

sip phone pantech pantech

sip wireless

shortel phone

sccp wireless

- br100 trunk port - tried not working

- br200 trunk port - tried working, didn't do measurements

- tcp rate min 16578

- tcp rate max 16579

- wan speed threshold for which qos becomes useful

each sip call seems to use 400 kbps bandwidth

=== devices list ===

br100 2011 extr 7

ap330 2002 br100-2001 eth1

ap330 2004 br100-2001 eth4

br100 2009 extr 1

br200 2001 extr 9

br200 2015 extr 10

--- thur 01-19 ---

--- current problems ---

br100 crash - 16256

laptop and phone can't get dhcp addr - need to see on wireshark

eth0 qos enabled, but not tun0

after call for a minute, call went dead

br100 upgrade to daily image

lk-2500#sh ver

Aerohive Networks Inc.

Copyright (C) 2006-2011

Version: HiveOS 5.0r2 release build0610

Build time: Thu Jan 19 16:35:05 UTC 2012

Build cookie: 011912054055

Platform: BR100

--- but still no dhcp addr for laptop ---

--- 16268 ---

tried on two br100, enable \_debug fe det, \_kdebug fe ba

they both showed that dhcp discover came into br100, but no dhcp rsp went out

both laptop - one for each br100 - didn't get dhcp address

this blocks Everything!

br100 2011 extr 7

br100 2009 extr 1

--- the next thing to try is to try on a br-200 ---

br200 2001 extr 9

br200 2015 extr 10

--- fri 01-20 ---

today's daily build

16268 is fixed

but the crash is still happening

swap the 2 br-100

and see if the crash still happening?

swich to lk-2dc0

deploy nw policy sqa, push config -> this went ok

tunnel on br-100 ok

laptop and phone received dhcp addr

but, laptop can't ping br-100 <- stuck

unplug and replug laptop: dhcp renew

and now it can ping up the tun, and to internet

unplug and replug the phone from br100 eth4

->this didn't do it

uplug, wait 1 min, replug poe for sip phone

->this did it

now both laptop and phone are on the 'good' br100

lk-2dc0, today 01-20 daily image

--- mon 01-23 ---

--- problems ---

network problem : can't get to hm, or any other websites

reboot laptop that didn't do it

wired network seems ok

->this went away after lunch

learn to use chariot

--- chariot server config ---

remote desk top

aerohive / aerohive

10.16.128.242

endopoints:

10.16.128.242

client ip address

hig\_performance

------------------------------------------------------------

br-100

sip phone wired

default tcp rate

iperf traffic and chariot traffic start and stop at same time

no qos no qos

no chariot chariot

---------- --------

iperf mos value

tcp

------------------------------------------------------------

--- tue ---

--- problems ---

how to make chariot stop after 1 mintue run

->this due to first stream had an error, and not able to start

and stop

-> disable that stream, only run the voip stream

voip traffic from chariot Not detected on br100

->check chariot tools qos tmeplate

The detection involves detecting the presence of forwarded traffic

with the IP header DSCP set to Expedited Forwarding (0xb8).

0xb8 = 1011 1000

0xb8 = 1011 1000

only look at first 6 bits, but fill the first two bits with 0, this will give:

0010 1110 = 0x2E

->not able to config voip qos

->on 10.16.128.242: when try to install service qos voip, it says

no drivers

->on client 10.16.128.242

windows was unable to find any drivers for this device

--- upgrade cvg to today's image ---

change iptable back, use it for iperf serveri

->kernel panic, due to image size change

That VM's boot config (/mnt/sda1/boot/grub/grub.conf)

had not been updated when we increased the max size of the rootfs image

(from 45 MB to 64 MB), before the Congo release.

--- try out the iperf server on 10.16.146.51

ssh root@10.16.146.51

--- file bug for hm, that qos is not enabled on tunnel ---

--- sh cpu det ---

--- to try

no qos no qos no qos no qos

no call call at once call in place place a call

------- ------------ ------------- ------------

chariot

tcp

->problem:

hm: nw pol sqa, router lan port, authentication

can't un-select congo-auth, can't save

and this is preventing both laptop and phone to get a dhcp addr

--- wed 01-25

use cli to disable cwp on router lan port!

no security-object sqa security additional-auth-method captive-web-portal ...

--- to try

lk-2dc0#sh qos l3-police

Layer 3 QoS Policing Status: OFF -- VoIP traffic is NOT detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: 100 Kbps

Max upload rate: 100 Kbps

interface: ppp0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

interface: tunnel1

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

br100 sip phone wired

call from 3013 to 3012

qos en qos en qos en qos en

no call call at once call in place place a call

------- ------------ ------------- ------------

chariot 419 kbps 88 kbps 55 kbps 126 kbps

tcp sound: norm sound: norm sound: 5 sec

scripts

linda-01-24

--- problem: try get chriot voip qos marked traffic going

10.16.128.242 not able to accept dscp marking

19.16.128.232 was able to, and its wireshark showing that pkts marked

dscp 0xb8

but, tcpdump -i eth1 -v on cvg shows that tos value 0x00

->this was resolved by config cisco switch from 10.16.128.132 to

10.16.136.2

--- problem: tunnel flapping after rebooted cvg to remove the iptable rule

--- thur 01-25

br100 chariot

qos en qos en qos en

no chariot voip chariot voip sip phone

--------------- ------------ ----------

chariot 416 kbps 129 kbps 85 kbps

tcp mos value 2.61 sound: 1st 5 sec

no mos value 4.37

chariot

tcp

lk-2dc0#sh qos l3

Layer 3 QoS Policing Status: ON -- VoIP traffic is detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: 100 Kbps

Max upload rate: 100 Kbps

interface: ppp0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

interface: tunnel1

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

--- today's problems:

tunnel flapping

br100 crash

--- fri 01-27

br100 chariot

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot 414 kpbs 73 kbps

tcp mos 3.20

no - mos 4.37

chariot

tcp

br100 sip phone

qos en qos en

no call call

--------------- ------------

chariot 414 kpbs 2 kbps

tcp mos 2.39

no - mos 4.50

chariot

tcp

--- dis qos

after push config, from cli

no security-object sqa security additional-auth-method captive-web-portal

lk-2dc0#sh run | in qos

qos policy sqa-qos user-profile 1000000 10 user 1000000

qos policy sqa-qos qos 0 wrr 1000000 10

qos policy sqa-qos qos 1 wrr 1000000 20

qos policy sqa-qos qos 2 wrr 1000000 30

qos policy sqa-qos qos 3 wrr 1000000 40

qos policy sqa-qos qos 4 wrr 1000000 50

qos policy sqa-qos qos 5 wrr 1000000 60

qos policy sqa-qos qos 6 strict 20000 0

qos policy sqa-qos qos 7 strict 20000 0

user-profile sqa qos-policy sqa-qos vlan-id 10 attribute 1

lk-2dc0#

lk-2dc0#

lk-2dc0#

lk-2dc0#sh qos l3

Layer 3 QoS Policing Status: OFF -- VoIP traffic is NOT detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: DISABLED

interface: ppp0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel1

------------------

Layer 3 QoS policing: DISABLED

lk-2dc0#

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot 414 kbps 299 kpbs

tcp 59 kpbs mos 1.24

no - 64 kbps mos 4.37

chariot

tcp

br100 sip phone

qos dis qos dis

no call call

--------------- ------------

chariot 414 kpbs 206 kbps

tcp mos 2.06

no - mos 4.50

chariot

tcp

--- mon 01-30

move a br200 from lab to cube

hook up power and serial

connect wan, and lan ports

upgrade to monday's daily image

--- problem:

chariot app can't reach the client laptop 10.16.150.194

tryied swich back to br100 - same problem

->the problem was that in nw policy router lan port, security was

clicked!

and that enabled security on all 4 lan ports! which prevented

traffic to get thru

this was found out when move laptop directly to office net,

bypass br200 all together, chariot was working

thus it must have been sth on the br200 itself

--- tue 01-31

br200 chariot

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot 347 k 79 k

tcp 64 k

mos 4.20

no - 64 k

chariot mos 4.37

tcp

br200 sip phone

qos en qos en

no call call

--------------- ------------

chariot 308 k 36k

tcp mos 2.40 - garbled

no - mos 3.43 - garbled

chariot

tcp

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot 343 kbps 244 k - tcp

tcp 52 k - voip

mos 1.00

no - 64 kbps

chariot mos 4.37

tcp

br100 sip phone

qos dis qos dis

no call call

--------------- ------------

chariot 337 kbps 165 204 kbps

tcp mos 4.45 4.40

no - mos 4.50

chariot

tcp

--- note:

when dhcp lease comes up, tunnel re-starts, the phone

will be silent for ~20 sec, but was able to recover

--- problems:

--- br200 msg:

lk-0d40#sh qos l3 st

ERROR: timeout.

lk-0d40#error in get module id Bridge Router Manage: No such file or directory

error in unset the ready flag (Bridge Router Manage): No such file or

directory

PM: Can not found the module id for process Bridge Router Manage: No such file

or directory

lk-0d40#

on br100:

lk-2dc0#sh qos l3 st

Policing currently OFF

Policing has not been turned on yet -- no statistics to show

lk-2dc0#

lk-2dc0#error in get module id Bridge Router Manage: No such file or directory

error in unset the ready flag (Bridge Router Manage): No such file or

directory

PM: Can not found the module id for process Bridge Router Manage: No such file

or directory

error in get module id Bridge Router Manage: No such file or directory

error in unset the ready flag (Bridge Router Manage): No such file or

directory

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or directory

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or directory

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or directory

error in get module id Bridge Router Manage: No such file or directory

error in unset the ready flag (Bridge Router Manage): No such file or

directory

PM: Can not found the module id for process Bridge Router Manage: No such file

or directory

lk-0d40#

lk-0d40#sh qos l3

ERROR: timeout.

lk-0d40#

en qos

complete push config

lk-0d40#sh qos l3

Layer 3 QoS Policing Status: OFF -- VoIP traffic is NOT detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: 100 Kbps

Max upload rate: 100 Kbps

interface: ppp0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

interface: tunnel1

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

lk-0d40#

but,

lk-0d40#sh qos l3 st

ERROR: timeout.

lk-0d40#

lk-0d40#

lk-0d40#

lk-0d40#sh qos l3

ERROR: timeout.

lk-0d40#

lk-0d40#

lk-0d40#

--- wed 02-01

to try br-100 pantech

chariot

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot

tcp

no -

chariot

tcp

sip phone

qos en qos en

no call call

--------------- ------------

chariot

tcp

no -

chariot

tcp

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot

tcp

no -

chariot

tcp

br100 sip phone

qos dis qos dis

no call call

--------------- ------------

chariot

tcp

no -

chariot

tcp

--- problems: <- this was due to firewall policy un-beknownst

from laptop 10.16.10.178, can not ping 10.16.128.232

or google.com

same for both 3g and eth0

tun0 isup

lk-2dc0#2012-02-01 17:34:47 debug kernel: L\*: (i) eth2

10.16.150.178->10.16.128.232(12702) ttl(128) icmp-echo-req(512/37888) 60 bytes

2012-02-01 17:34:47 debug kernel: L\*: (u) mgt0.9

10.16.150.178->10.16.128.232(12702) ttl(128) icmp-echo-req(512/37888) 60 bytes

2012-02-01 17:34:47 debug kernel: L\*: (!) tunnel0

10.16.150.178->10.16.128.232(12702) ttl(127) mtu(1476)

icmp-echo-req(512/37888) 60 bytes

2012-02-01 17:34:52 debug kernel: L\*: (i) eth2

10.16.150.178->10.16.128.232(12703) ttl(128) icmp-echo-req(512/38144) 60 bytes

2012-02-01 17:34:52 debug kernel: L\*: (u) mgt0.9

10.16.150.178->10.16.128.232(12703) ttl(128) icmp-echo-req(512/38144) 60 bytes

2012-02-01 17:34:52 debug kernel: L\*: (!) tunnel0

10.16.150.178->10.16.128.232(12703) ttl(127) mtu(1476)

icmp-echo-req(512/38144) 60 bytes

2012-02-01 17:34:57 debug kernel: L\*: (i) eth2

10.16.150.178->10.16.128.232(12704) ttl(128) icmp-echo-req(512/38400) 60 bytes

2012-02-01 17:34:57 debug kernel: L\*: (u) mgt0.9

10.16.150.178->10.16.128.232(12704) ttl(128) icmp-echo-req(512/38400) 60 bytes

2012-02-01 17:34:57 debug kernel: L\*: (!) tunnel0

10.16.150.178->10.16.128.232(12704) ttl(127) mtu(1476)

icmp-echo-req(512/38400) 60 bytes

2012-02-01 17:35:03 debug kernel: L\*: (i) eth2

10.16.150.178->10.16.128.232(12705) ttl(128) icmp-echo-req(512/38656) 60 bytes

2012-02-01 17:35:03 debug kernel: L\*: (u) mgt0.9

10.16.150.178->10.16.128.232(12705) ttl(128) icmp-echo-req(512/38656) 60 bytes

2012-02-01 17:35:03 debug kernel: L\*: (!) tunnel0

10.16.150.178->10.16.128.232(12705) ttl(127) mtu(1476)

icmp-echo-req(512/38656) 60 bytes

ATHR\_GMAC: eth1(Enet Unit:2 PHY:3) is Up

2012-02-01 17:35:16 debug fed: [fed\_basic]: Recieved kevent (KEVT\_IF\_CHG).

2012-02-01 17:35:19 debug ah\_brd: 00432da0 00 04 00 08 02 01 01 04 65 74

68 31 00 08 02 01 ........ eth1....

2012-02-01 17:35:19 debug ah\_brd: 00432db0 01 04 65 74 68 32 00 08 02 01

00 04 65 74 68 33 ..eth2.. ....eth3

2012-02-01 17:35:19 debug ah\_brd: 00432dc0 00 08 02 01 01 04 65 74 68 34

......et h4

option: option\_instat\_callback: error -143

option: option\_instat\_callback: error -143

2012-02-01 17:35:20 debug fed: [fed\_basic]: Recieved kevent (KEVT\_IF\_CHG).

2012-02-01 17:35:20 debug fed: [fed\_basic]: Recieved kevent (KEVT\_IF\_CHG).

2012-02-01 17:35:20 debug ah\_brd: 00432438 00 01 00 08 01 00 00 04 70 70

70 30 ........ ppp0

2012-02-01 17:35:20 debug ah\_brd: WFOSM: Added event PPP\_IF\_DOWN

2012-02-01 17:35:20 debug ah\_brd: WFOSM: Added event PPP\_STOPPED

2012-02-01 17:35:20 debug ah\_brd: WFOSM: Added event START\_PPP

2012-02-01 17:35:20 debug ah\_brd: WFOSM: state CONNECTED -> ATTACHED

2012-02-01 17:35:20 debug ah\_brd: WFOSM: state ATTACHED -> ATTACHED

2012-02-01 17:35:20 debug ah\_brd: WFOSM: Added event PPP\_STOPPED

2012-02-01 17:35:21 debug ah\_brd: WFOSM: Added event USB\_DEV\_REMOVE

2012-02-01 17:35:22 debug ah\_brd: WFOSM: state ATTACHED -> ATTACHED

2012-02-01 17:35:22 debug ah\_brd: WFOSM: state ATTACHED -> ATTACHED

2012-02-01 17:35:22 debug ah\_brd: WFOSM: state ATTACHED -> IDLE

cvg-dsl-beta:~# tcpdump -i tunnel0 host 10.16.150.178

tcpdump: verbose output suppressed, use -v or -vv for full protocol decode

listening on tunnel0, link-type LINUX\_SLL (Linux cooked), capture size 96

bytes

when use wired eth0:

--- thur 02-02

--- to try br-100 pantech

lk-2dc0#sh qos l3

Layer 3 QoS Policing Status: OFF -- VoIP traffic is NOT detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: 100 Kbps

Max upload rate: 100 Kbps

interface: ppp0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: 100 Kbps

Max upload rate: 100 Kbps

interface: tunnel0

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

interface: tunnel1

------------------

Layer 3 QoS policing: ENABLED

Max download rate: (same as that of the currently active WAN interface)

Max upload rate: N/A

chariot

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot 853 k 186 k

tcp 63 k mos 2.61

no - 65 k mos 3.91

chariot

tcp

sip phone

qos en qos en

no call call

--------------- ------------

chariot 668 k 15 k

tcp mos 4.10 - with stops

no - mos 4.25 - with stops

chariot

tcp

lk-2dc0#sh qos l3

Layer 3 QoS Policing Status: OFF -- VoIP traffic is NOT detected

Layer 3 QoS Policing Configuration

==================================

interface: eth0

------------------

Layer 3 QoS policing: DISABLED

interface: ppp0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel0

------------------

Layer 3 QoS policing: DISABLED

interface: tunnel1

------------------

Layer 3 QoS policing: DISABLED

lk-2dc0#

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot 518 k 410 k

tcp 61 k mos 1.89

no - 64 k mos 4.0

chariot

tcp

br100 sip phone

qos dis qos dis

no call call

--------------- ------------

chariot 534 k 379 k

tcp mos 3.24 - severely garbled

no - mos 4.33 - with stops

chariot

tcp

--- yesterday's problem was due to firewall! in nw pol sqa!

removed it and re-push config

--- usbm mode on-dem

--- remove pantech

--- sav conf and reboot

--- sh usbm

On-demand

--- connect usbm, sh usbm

Primary

Connected

--- sh ip ro

Going thru ppp0

--- un-plug eth0

Going thru ppp0

--- sat 02-04

--- mon 02-06

br200 eth0

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot 413 k 68k

tcp 60k mos 4.37

no - 64k mos 4.37

chariot

tcp

sip phone

qos en qos en

no call call

--------------- ------------

chariot 331 k 74k

tcp mos 4.50

no - mos 4.50

chariot

tcp

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot 404 k 224 k

tcp 50 k mos 1.00

no - 64 k mos 4.37

chariot

tcp

sip phone

qos dis qos dis

no call call

--------------- ------------

chariot 256 k 208 k

tcp mos 2.04

call broken

no - mos 4.50

chariot

tcp

--- mon 02-06 br200 pantech

lk-0d40#sh int

State=Operational state; Chan=Channel;

Radio=Radio profile; U=up; D=down;

Name MAC addr Mode State Chan VLAN Radio Hive SSID

------- -------------- -------- ----- ---- ---- ---------- ----------

---------

Mgt0 0019:778d:0d40 - U - 1 - congo3 -

Mgt0.16 0019:778d:0d40 - U - 10 - congo3 -

Eth0 0019:778d:0d40 wan D - - - - -

Eth1 0019:778d:0d42 access U - - - congo3 -

Eth2 0019:778d:0d43 access D - - - congo3 -

Eth3 0019:778d:0d44 access D - - - congo3 -

Eth4 0019:778d:0d45 access U - - - congo3 -

Tunnel0 - - U - 1 - congo3 -

Wifi0 0019:778d:0d50 access U 1 - radio\_ng0 - -

Wifi0.1 0019:778d:0d50 access U 1 - radio\_ng0 congo3 sqa-01

lk-0d40#

lk-0d40#

qos en qos en

no chariot voip chariot voip

--------------- ------------

chariot 545 k 82k

tcp 64k mos 3.46

no - 64k mos 4.31

chariot

tcp

sip phone

qos en qos en

no call call

--------------- ------------

chariot 551 k 74 k

tcp mos 4.50

no - mos 4.50

chariot

tcp

qos dis qos dis

no chariot voip chariot voip

--------------- ------------

chariot 502 k 394 k

tcp 60 k mos 1.53

no -

chariot

tcp

sip phone

qos dis qos dis

no call call

--------------- ------------

chariot 540 k 437 k

tcp mos 3.70 - call broken

no - mos 4.50

chariot

tcp

--- br100 trunk port with sip phone

lk-2dc0#sh int

State=Operational state; Chan=Channel;

Radio=Radio profile; U=up; D=down;

Name MAC addr Mode State Chan VLAN Radio Hive SSID

------- -------------- -------- ----- ---- ---- ---------- ----------

---------

Mgt0 0019:777a:2dc0 - U - 1 - congo3 -

Mgt0.9 0019:777a:2dc0 - U - 10 - congo3 -

Eth0 0019:777a:2dc0 wan U - - - - -

Eth1 0019:777a:2dc4 access U - - - congo3 -

Eth2 0019:777a:2dc5 access D - - - congo3 -

Eth3 0019:777a:2dc6 access D - - - congo3 -

Eth4 0019:777a:2dc7 bridge U - - - congo3 -

Tunnel0 - - U - 1 - congo3 -

Wifi0 0019:777a:2dc8 dual U 11 - radio\_ng0 - -

Wifi0.1 0019:777a:2dc8 backhaul U 11 1 radio\_ng0 congo3 -

Wifi0.2 0019:777a:2dc9 access U 11 - radio\_ng0 congo3 sqa-01

lk-2dc0#

--- tue 02-07

br100 lan trunk port Not working with sip phone - it can't get dhcp addr

but a windows xp laptop can

debug trace shows that :

2012-02-07 10:43:11 debug kernel: L\*: (i) eth4 0.0.0.0->255.255.255.255(0)

ttl(64) UDP 68->67 DHCP Discover 1500 bytes

2012-02-07 10:43:11 debug kernel: L\*: (o) wifi0.2

0.0.0.0->255.255.255.255(0) ttl(64) UDP 68->67 DHCP Discover 1514 bytes

2012-02-07 10:43:11 debug kernel: L\*: (o) wifi0.1

0.0.0.0->255.255.255.255(0) ttl(64) UDP 68->67 DHCP Discover 1514 bytes

2012-02-07 10:43:11 debug kernel: L\*: (o) eth1 0.0.0.0->255.255.255.255(0)

ttl(64) UDP 68->67 DHCP Discover 1514 bytes

2012-02-07 10:43:11 debug kernel: L\*: (u) mgt0.9 0.0.0.0->255.255.255.255(0)

ttl(64) UDP 68->67 DHCP Discover 1500 bytes

as opposed to when it works - trace for laptop:

2012-02-07 10:50:21 debug kernel: L\*: (i) eth1

10.16.150.178->10.16.150.177(54279) ttl(128) UDP 68->67 DHCP Request 333 bytes

2012-02-07 10:50:21 debug kernel: L\*: (u) mgt0.9

10.16.150.178->10.16.150.177(54279) ttl(128) UDP 68->67 DHCP Request 333 bytes

2012-02-07 10:50:21 debug kernel: L\*: (i) mgt0.9

10.16.150.177->10.16.150.178(0) ttl(64) UDP 67->68 DHCP Ack 332 bytes

2012-02-07 10:50:21 debug kernel: L\*: (o) eth1

10.16.150.177->10.16.150.178(0) ttl(64) UDP 67->68 DHCP Ack 346 bytes

--- try br200 eth4 trunk mode

in theory, just move the phone from br100 eth4 to br200 eth4

tried the same config on a br200, and the phone worked

lk-0d40#sh ver

Aerohive Networks Inc.

Copyright (C) 2006-2011

Version: HiveOS 5.0r2 release build0627

Build time: Sun Feb 5 20:28:06 UTC 2012

Build cookie: 020512054049

Platform: BR200-WP

Eth4 0019:778d:0d45 bridge D - - - congo3 -

--- the conclusion:

br100 br200

access eg no tag eg no tag

trunk eg vlan id 1 eg no tag

--- wed

spend wed test cvg proxy activation

--- thur

spend thur test cvg proxy activation

need dns server config change

capture on three proxy server activation packets exchange

--- tue 02-21

get sip phone to connect wireless

get ixiachariot going again

--- wed 02-22

sip phone wireless

laptop wireless

qos en qos en

no call call

--------------- ------------

chariot 295 k 27 k mos 4.3

tcp

no - mos 4.0

chariot

tcp

- trying to get a longer dhcp lease on bg100

for br200

need to change both places:

config/sripts/dhcp-svr

/etc/config/dhcp

save and reboot

when done, on br200

lk-0d40#sh log buf | in dhcp

2012-02-22 14:09:35 info dhcpd: Store DHCP leases.

2012-02-22 14:03:16 info dhcpc: DHCPC: set Ip address

192.168.82.115/255.255.255.0 to interface eth0.

2012-02-22 14:03:16 info dhcpc: DHCPC: Lease of 192.168.82.115 obtained,

lease time 3600

2012-02-22 14:03:16 info dhcpc: receive a DHCP ACK

2012-02-22 14:03:16 info dhcpc: Sending DHCP select on eth0 for

192.168.82.115

2012-02-22 14:03:16 info dhcpc: send selecting requested\_ip 192.168.82.115

to server 192.168.82.1

2012-02-22 14:03:16 info dhcpc: receive a DHCP OFFER

2012-02-22 14:03:16 info dhcpc: Sending DHCP discover on eth0

2012-02-22 14:03:10 info dhcpc: Sending DHCP discover on eth0

2012-02-22 14:03:03 info dhcpc: Sending DHCP discover on eth0

2012-02-22 14:02:54 info dhcpc: Sending DHCP discover on eth0

2012-02-22 14:02:49 info dhcpc: send renew\_requested requested\_ip

192.168.82.115 to server 192.168.82.1

2012-02-22 14:02:42 info dhcpc: send renew\_requested requested\_ip

192.168.82.115 to server 192.168.82.1

2012-02-22 14:02:34 info dhcpc: send renew\_requested requested\_ip

192.168.82.115 to server 192.168.82.1

2012-02-22 14:02:34 info dhcpc: DHCPC: renew interface eth0...

sip phone wireless

laptop wireless

qos dis qos dis

no call call

--------------- ------------

chariot 308 k 200 k

tcp mos 4.30

no - mos 4.40

chariot

tcp

--- from hm, change rate limit to min value

1 kbps up and down

push config - partial

sip phone wireless

laptop wireless

qos en qos en

no call call

--------------- ------------

chariot 277k

tcp

no - 16578 lasted 20 sec, tun down

chariot hung up, tun recovered

tcp

Bugzilla Bug 16578

qos: bandwidth rate limit min value needs to be raised from current min value

of 1 kbps

--- from hm, change rate limit to max value

1500 kbps up and down

push config - partial

sip phone wireless

laptop wireless

qos en qos en

no call call

--------------- ------------

chariot

tcp

no - 16579

chariot

tcp

opposite of 16578: qos bandwidth rate limit max value should be actual

media speed

--- thur 02-23 10 calls supported?

use default tcp rate limit 100 kbps

qos enabled on eth0, tun0, tun1

make a call from wireless sp phone 4.10

from ixiachariot

send 1 voip stream: wired laptop 10.16.150.194 <-> 10.16.128.232

two end points clock not sync-ed, rebooted laptop 10.16.150.194

->this worked

--- to change on bg100

ssh root@192.168.82.1

cd /persist

vi limit\_bw.sh

change 500k to 800k

reboot OR

root@00222DB35FFC:/persist# ./limit\_bw.sh restart

Restarting bandwidth shaping: /sbin/tc class add dev eth2

parent 1: classid 1:30 htb rate 800kbit burst 40k

done

root@00222DB35FFC:/persist#

--- wan link up 500k

down 500k

tcp rate up 100k

down 100k

voip up 400k

down 400k

send 1 voip traffic 64 k mos 4.18

send 2 voip traffic 64 k mos 4.07

64 k mos 4.09

send 3 voip traffic 64 k mos 2.90

64 k mos 3.12

64 k mos 3.10

send 4 voip traffic 59 k mos 1.76

60 k mos 1.67

60 k mos 1.66

60 k mos 1.79

1 call sip wireless 2 voip traffic: tun went down

phone mos 2.67

60 k mos 2.26

60 k mos 2.04

1 call sip wireless 1 voip traffic: tun went down

phone mos 4.0

64 k mos 4.37

1 call sip wireless : tun ok

mos 4.50

1 tcp traffic: 38 k

-->so this looks like one real call uses more than 300k

or even closer to 400k

--- wan link up 800k

down 800k

tcp rate up 100k

down 100k

voip up 700k

down 700k

send 1 voip traffic 63 k mos 4.03

send 2 voip traffic 64 k mos 4.34

64 k mos 4.37

send 3 voip traffic 64 k mos 4.37

64 k mos 4.37

64 k mos 4.37

send 4 voip traffic 64 k mos 4.37

64 k mos 4.37

64 k mos 4.37

64 k mos 4.37

send 7 voip traffic : tun ok

60 k mos 1.90

59 k mos 1.86

59 k mos 1.87

59 k mos 1.91

59 k mos 1.92

60 k mos 1.90

59 k mos 1.85

send 10 voip traffic : tun went down

1 call 2 voip traffic: tun ok

but, call cut off in 30 sec

sip phone mos 3.90

64k mos 3.91

64k mos 3.96

lk-0d40#sh vpn ipsec-t

IPsec Tunnel Duration:

Source Destination Created

Duration

------------------------ ------------------------ --------------------

----------------------------------------

192.168.82.115[4500] 64.81.246.198[4500] 2012-02-23 16:23:14 0 days

0 hours 8 minutes 49 seconds

Total IPsec Tunnel Sessions: 1

Tunnel Statistic Information::

Src IP Dst IP Pkts Bytes

Auth-Err Other-Err SPI Remaining-Lifetime

------------------------ ------------------------ ---------- ----------

---------- ---------- ---------- ------------------

192.168.82.115[4500] 64.81.246.198[4500] 7728 1688655 0

0 0x095b3a35 2353(s) rekey

64.81.246.198[4500] 192.168.82.115[4500] 421 83361 0

0 0x03b48114 2353(s) rekey

lk-0d40#[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay

error<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bb5c >

lk-0d40#

lk-0d40#

lk-0d40#

lk-0d40#[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay

error<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bc60 >

lk-0d40#

lk-0d40#sh vpn ipsec-t[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c

AES-CCM replay error <keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bc78 >

log buf[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay

error<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bc7c >

[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay error

<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bd05 >

[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay error

<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bd0d >

[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay error

<keyix 68, tid 6, rx rsc 0x0, key rsc 0x31bd11 >

lk-0d40#sh vpn ipsec-t

IPsec Tunnel Duration:

Source Destination Created

Duration

------------------------ ------------------------ --------------------

----------------------------------------

192.168.82.115[4500] 64.81.246.198[4500] 2012-02-23 16:23:14 0 days

0 hours 13 minutes 42 seconds

Total IPsec Tunnel Sessions: 1

Tunnel Statistic Information::

Src IP Dst IP Pkts Bytes

Auth-Err Other-Err SPI Remaining-Lifetime

------------------------ ------------------------ ---------- ----------

---------- ---------- ---------- ------------------

192.168.82.115[4500] 64.81.246.198[4500] 16356 3566588 0

0 0x095b3a35 2060(s) rekey

64.81.246.198[4500] 192.168.82.115[4500] 3781 782340 0

0 0x03b48114 2060(s) rekey

lk-0d40#

Bug 16593 has been added to the database

#[wifi]: ccmp\_decap: recover station c8:9c:1d:a3:02:2c AES-CCM replay

error<keyix 68, tid 6, rx rsc 0x0, key rsc 0x2b7821 >

--- mon 02-27

lk-0d40#sh ver

Aerohive Networks Inc.

Copyright (C) 2006-2011

Version: HiveOS 5.0r3 release build0648

Build time: Tue Feb 21 20:27:39 UTC 2012

Build cookie: 022112031431

Platform: BR200-WP

--- wan link up 800k

down 800k

tcp rate up 100k

down 100k

voip up 700k

down 700k

make one call from sip phone mos value 4.50 4.43

ixchariot 1 voip traffic 64 k mos 4.37 4.37 4.37

phone 4.36 4.05 4.50

sound ok, 1 or 2 breaks

ixchariot 2 voip traffic 64k mos 4.37 4.37

64k mos 4.37 4.37

phone 4.50 4.50

sound ok no breaks

ixchariot 3 voip traffic 64k mos 4.15

64k mos 4.16

64k mos 4.16

phone 4.50 4.50

sound ok

ixchariot 4 voip traffic 63k mos 2.76

63k mos 2.85

63k mos 2.90

63k mos 2.81

phone 4.38 4.22

sound ok

ixchariot 5 voip traffic - tunnel went down

57k mos 2.78

57k mos 2.71

57k mos 2.75

57k mos 2.63

57k mos 2.67

phone 2.22

sound not ok

make 1 call after this test, it was busy - 3 tries

wait 5 min and re-try

now call works

## Key Scenarios

## Function Test Case

### Ft\_QoSOnBr\_1

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_1 | | |
| Priority | Middle | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos no chariot traffic, tcp rate default value | | |
| Pre-condition |  | | |
| Test procedure | iperf test | | |
| Expect result | Baseline iperf results  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value | | |

### Ft\_QoSOnBr\_2

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_2 | | |
| Priority | Middle | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos no chariot traffic, tcp rate max | | |
| Pre-condition |  | | |
| Test procedure | iperf test | | |
| Expect result | Baseline iperf results  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_3

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_3 | | |
| Priority | Middle | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos no chariot traffic, tcp rate min value | | |
| Pre-condition |  | | |
| Test procedure | iperf test | | |
| Expect result | Baseline iperf results  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_4

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_4 | | |
| Priority | Middle | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos chariot traffic start and stop at same time, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | Iperf test | | |
| Expect result | Iperf value and chariot mos value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_5

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_5 | | |
| Priority | Middle | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos chariot traffic stop after iperf stops, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check mos value changes if any  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_6

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_6 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use |  | | |
| Description | No qos chariot traffic stop prior to iperf stop, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check iperf results value change, if any  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_7

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_7 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, no chariot traffic, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | Iperf | | |
| Expect result | Check iperf results value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority | | |

### Ft\_QoSOnBr\_8

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_8 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, chariot traffic start and stop at same time as iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_9

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_9 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, chariot traffic stop after iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | Iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_10

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_10 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, chariot traffic stop prior to iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | Iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_11

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_11 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, 10 paris chariot traffic start and stop at same time as iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_12

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_12 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, 10 pairs chariot traffic stop after iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_13

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_13 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | Qos enabled, 10 pairs chariot traffic stop prior to iperf, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Check iperf results value  Chariot traffic mos value  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_14

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_14 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos, call at once, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_15

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_15 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos, call in place, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_16

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_16 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | No qos, place a call, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_17

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_17 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | qos, call at once, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_18

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_18 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | qos, call in place, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

### Ft\_QoSOnBr\_19

|  |  |  |  |
| --- | --- | --- | --- |
| Case ID | Ft\_QoSOnBr\_19 | | |
| Priority | Accept | Automation Flag | NA |
| Topology to use | Figure 2 | | |
| Description | qos, place a call, tcp rate default | | |
| Pre-condition |  | | |
| Test procedure | iperf | | |
| Expect result | Iperf values  Call quality  check br-100 and cvg pkt marking dscp value: eth0 and tun0encap pkt dscp value  capwap traffic: effected by bg and priority  vpn traffic : effected | | |

## Stress Test Case

## Duration Test Case

## Performance Test Case

## Scalability Test Case

## Compatibility Test Case

## CLI Management (Automation Status: Yes/No)

## GUI Management-HiveManager

## GUI Management-HiveUI