

strongSwan - Issue #3613

Load-test jobs scheduled after tunnels are terminated

28.10.2020 05:09 - Ryan Farrell

Status:	Feedback	Resolution:
Priority:	Low	
Assignee:		
Category:	testing	
Affected version:	5.9.0	
Description		
<p>Started some load-test initiators using multiple "ipsec load-tester initiate" commands: "ipsec load-tester initiate 10 100"</p> <p>I would then terminate the tunnels using "swanctl -t -i load-test" or "swanctl -t -i load-test --force"</p> <p>After the tunnels all terminate, I would repeat by running additional ipsec load-test commands. I started looking at the jobs/threads after seeing performance struggles on repeated tests. I noticed that in the output of the "swanctl -S" command, the "jobs scheduled" field would not drop back to 0. The number of jobs would accumulate as I would run additional load-test commands.</p> <p>Restarting the ipsec service does reset everything as expected. I don't have a need to be able to keep bringing test tunnels up and then down. Restarting ipsec is fine and I am expecting that is how this plugin may have been designed to be used, which is fine. However, I wanted to open a ticket in case there is a potential underlying issue outside the scope of the load-tester or if this isn't your expected behavior.</p> <p>Below is some example out of the swanctl -S commands show the jobs scheduled not dropping to 0. Also included snippets from the load-tester and charon conf files.</p> <pre>03:37:05 worker threads: 32 total, 27 idle, working: 4/0/1/0 job queues: 0/0/0/0 jobs scheduled: 0 IKE_SAs: 0 total, 0 half-open 03:39:05 worker threads: 32 total, 27 idle, working: 4/0/1/0 job queues: 0/0/0/0 jobs scheduled: 30 IKE_SAs: 10 total, 0 half-open 03:40:35 worker threads: 32 total, 27 idle, working: 4/0/1/0 job queues: 0/0/0/0 jobs scheduled: 30 IKE_SAs: 0 total, 0 half-open 03:42:15 worker threads: 32 total, 27 idle, working: 4/0/1/0 job queues: 0/0/0/0 jobs scheduled: 320 IKE_SAs: 100 total, 0 half-open 03:43:55 worker threads: 32 total, 27 idle, working: 4/0/1/0 job queues: 0/0/0/0 jobs scheduled: 220 IKE_SAs: 0 total, 0 half-open</pre> <p>load-tester.conf</p> <pre>load-tester {</pre>		

```

load = yes
enable = yes
addrs_keep = no
version = 2
initiators = 0
iterations = 0
delay = 1000
init_limit = 0
ca_dir = /usr/local/etc/swanctl/x509ca
issuer_cert = /usr/local/etc/swanctl/x509ca/enb-signing.crt
issuer_key = /usr/local/etc/swanctl/private/enb-signing.key
ike_rekey = 3600
child_rekey = 1800
crl = http://test/crl/enb/signing.crl.pem
addrs
{
ens33 = 2001a:b:4001:f::2/64
}
addrs_keep = yes
addrs_prefix = 64
#initiator = 2001a:b:4001:f::1
responder = 2001a:b:7001:1::1
initiator_auth = pubkey
responder_auth = pubkey
responder_id = C=US, CN=sitelpair1
initiator_id = CN=conn-%d, OU=load-test, O=strongSwan
initiator_tsi = ::/0
initiator_tsr = ::/0
delete_after_established = no
digest = sha256
mode = tunnel
proposal = aes256gcm16-sha256-modp2048
esp = aes256gcm16-sha256
request_virtual_ip = yes
dpd_delay = 30
shutdown_when_complete = no
}

```

charon.conf (only configured parms shown, everything else is default)

```

charon {
dos_protection = no
ikesa_table_segments = 128
ikesa_table_size = 1024
initiator_only = yes
install_routes = no
install_virtual_ip = yes
interfaces_use = ens33
reuse_ikesa = no
threads = 32
}

```

History

#1 - 28.10.2020 12:06 - Tobias Brunner

- Status changed from New to Feedback

For every IKE_SA there are a number of jobs queued (for rekeying, retransmits etc.). These are not cleared if the corresponding IKE_SA is terminated (our job scheduler does not allow for that). But they will basically just be no-ops if the IKE_SA is already gone (there is some overhead as they occupy one of the threads and when trying to check out the IKE_SA for a job, but most use SPLs to do so i.e. that happens via hashtable).