

Connections Pools

To send an HTTP request, a connection must be established to the server. During the load test execution, every VU creates multiple connections to the Webserver(s) being load tested.

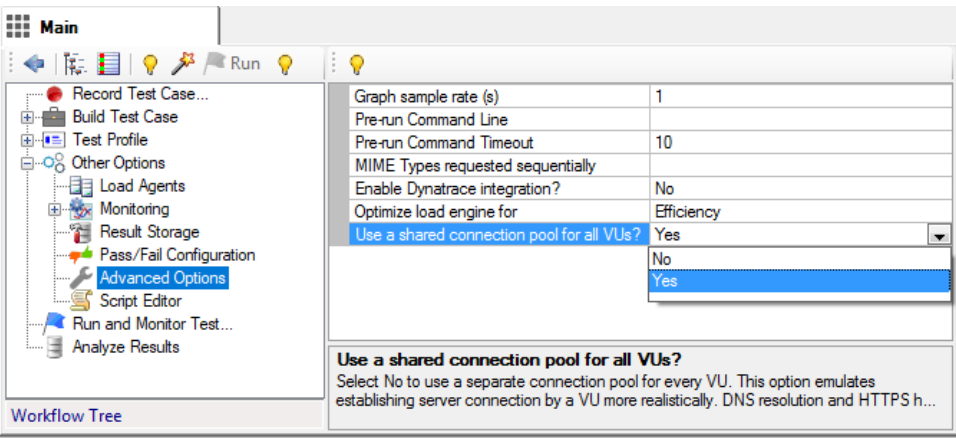
There are several steps required to create a new connection:

- Establish a connection
- DNS resolution
- HTTPS handshaking (if applicable)

Creating a connection consumes some system resources. In some cases, the performance impact of creating connections can be significant. If too many connections are created, then the performance of the test machine degrades, which may impact the accuracy of the test result. To save resources on maintaining connections, connection pools are used to reuse connections for subsequent requests.

There are two ways to handle connection pooling in Stressstimulus:

- **Performance VU**: Each VU has its own connection pool with its own DNS



Property	Value
Graph sample rate (s)	1
Pre-run Command Line	
Pre-run Command Timeout	10
MIME Types requested sequentially	
Enable Dynatrace integration?	No
Optimize load engine for	Efficiency
Use a shared connection pool for all VUs?	Yes

Use a shared connection pool for all VUs?
Select No to use a separate connection pool for every VU. This option emulates establishing server connection by a VU more realistically. DNS resolution and HTTPS h...

cache. On the first request to ever
yhost, DNS resolution takes place,
and then it is cached in the
connection pool. This behavior

or of a VU accurately estimate the behavior of a physicist user when nevertheless your server conducts its shown DNS resolution. Use this option w

h
e
n
Y
o
u
n
e
e
d
t
o
a
c
c
u
r
a
t
e
l
y
e
s
t
i
m
a
t
e
D
N
S
r
e
s
o
l
u
t
i
o
n
t
i
m
e
i
n
y
o
u
r
p
e
r
f
o
r
m
a
n
c
e
t
e
s
t
s
a
n
d
w
h
e
n
s
y
s
t
e
m
r
e
s
o
u
r
c
e
s
a
r
e
s
u
f
f
i
c
i
e
n
t

. While providing accurate DNS resolution, emulation, this connection pooling method requires more hardware resources, as the number

er of c o n n e c t i o n p o o l s w i l l e q u a l t h e n u m b e r o f V U s. T h i s p o o l i n g m o d e l s h o u l d b e u s e d w h e n t h e n u m b e r o f V U s i s n o t t o o h i g h o r w

h
e
n
t
h
e
l
o
a
d
g
e
n
e
r
a
t
o
r
m
a
c
h
i
n
e
s
h
a
v
e
s
u
f
f
i
c
i
e
n
t
r
e
s
o
u
r
c
e
s.
T
o
e
n
a
b
l
e
P
e
r
V
U
P
o
l
i
n
g,
i
n
t
h
e
w
o
r
k
l
o
w
t
r
e
e,
g
o
t
o
**A
d
v
a
n
c
e
d
O
p
t
i**

ons
a
n
d
c
h
a
n
g
e
t
h
e
U
S
e
a
s
h
a
r
e
d
c
o
n
n
e
c
t
i
o
n
p
o
o
l
f
o
r
a
l
l
V
U
s?
t
o
N
o.

Note:

Use this option whenever a authenticating with client certificate. For more information see [Authentication](#).

- **Shared:** There is a sin

g
l
e
c
t
r
o
n
i
c
c
o
n
n
e
c
t
i
o
n
p
o
l
y
m
e
r
s
a
r
e
t
h
e
m
o
d
e
l
c
o
n
s
u
m
e
r
s
t
h
e
l
e
a
s
t
a
m
o
u
n
t
o
f
s
y
s
t
e
m
r
e
s
o
u
r
c
e
s
a
n
d
w
o
r
k
s
b
e
s
t
i
n
l
a
r
g
e
s
c
a
l

e
te
st
s.
T
h
e
o
n
l
y
d
i
s
a
d
v
a
n
t
a
g
e
o
f
t
h
i
s
m
o
d
e
l
i
s
t
h
a
t
D
N
S
r
e
s
o
l
u
t
i
o
n
i
s
p
e
r
f
o
r
m
e
d
o
n
c
e
p
e
r
h
o
s
t
f
o
r
a
l
I
V
U
s.
F
o
r
p
r
a
c
t
i
c
a
l
p
u
r
p
o
s
e
s,
D
N

S
r
e
s
o
l
u
t
i
o
n
t
i
m
e,
i
n
m
o
s
t
c
a
s
e
s,
i
s
a
n
i
n
s
i
g
n
i
f
i
c
a
n
t
c
o
m
p
a
r
i
s
o
n
t
o
a
p
p
l
i
c
a
t
i
o
n
s
e
r
v
e
r
e
s
p
o
n
s
e
t
i
m
e
a
n
d
n
e
t
w
o
r
k
l
a
t
e
n
c
y.
T
h
e
r
e
f
o
r
e

this pooling model should be used in most cases as it provides the best load tests scalability. It is enabled by default.