

global tcp LB and proxy client ip

<https://cloud.google.com/load-balancing/docs/tcp/setting-up-tcp>

LB Name: global-tcp-n1-n2

IP:Port <http://34.96.92.171:25/>

1 setup global tcp LB

1.1 后端设置

← New TCP/SSL load balancer

Name ?
Name is permanent

global-tcp-n1-n2

✓ Backend configuration
Your backend is configured

→

● Frontend configuration
You have not configured your frontend yet

① Review and finalize
Optional

Create

Cancel

Backend configuration

Name ?
global-tcp-n1-n2

Description

Protocol: TCP Named port: http Timeout: 30 seconds ✎

Backend type
☒ Instance groups
☐ Network endpoint groups

Backends
Regions: us-central1

nginx1-group (Zone: us-central1-a, Port: 80) ✎

nginx2-group (Zone: us-central1-a, Port: 80) ✎

+ Add backend

Health check ?
healthchecktest (TCP)
port: 80, timeout: 5s, check interval: 10s, unhealthy threshold: 3 attempts

Session affinity ?
None

Connection draining timeout ?
300 seconds

[⌵ Hide advanced configurations](#)

配置name port 映射



Edit nginx1-group

Zone

us-central1-a

Network

default

Subnetwork

default

Port name mapping (Optional)

A load balancer sends traffic to an instance group through a named port. Create a named port to map the incoming traffic to a specific port number, then go to "HTTP load balancing" to create a load balancer using this instance group.

Port name

Port numbers

http	80	×
------	----	---

tcp	8081	×
-----	------	---

+ Add item		
----------------------------	--	--

VM Instances

nginx-1	×
---------	---

Add an instance	▼
-----------------	---

Save

Cancel

1.2 设置前端并打开proxy 协议

← New TCP/SSL load balancer

Name ⓘ
Name is permanent
global-tcp-n1-n2

✓ **Backend configuration**
Your backend is configured

✓ **Frontend configuration**
Your frontend is configured →

① **Review and finalize**
Optional

Create Cancel

Frontend configuration

Specify an IP address, port and protocol. This IP address is the frontend IP for your clients requests. For SSL, a certificate must also be assigned.

New Frontend IP and port ⓘ

Name (Optional) ⓘ
Name is permanent
global-tcp-proxy

[Add a description](#)

Protocol ⓘ
TCP

Network Service Tier ⓘ
☒ Premium (Current project-level tier, [change](#)) ⓘ
☐ Standard ⓘ

IP version ⓘ
IPv4

IP address ⓘ
Ephemeral

Port ⓘ
25

Proxy Protocol ⓘ
On

Done Cancel

+ Add Frontend IP and port

2 配置proxy 协议

修改nginx http 启动配置来支持TCP PROXY头。否则会出现400错误

<https://docs.nginx.com/nginx/admin-guide/load-balancer/using-proxy-protocol/>

```
sudo vim /etc/nginx/nginx.conf
sudo service nginx restart
```

```
http {
    #...
    server {
        listen 80    proxy_protocol;
        listen 443   ssl proxy_protocol;
        #...
    }
}
```

```
http {

    ##
    # Basic Settings
    ##
    server {
        listen 80    proxy_protocol;
        listen 443   ssl proxy_protocol;
        #...
    }
}
```

3 测试

3.2 Nginx Web

curl -v 35.244.241.122:1883

查看nginx 日志 发现proxy tcp4

cat /var/log/nginx/access.log

35.191.9.25 - - [18/Dec/2019:12:18:58 +0000] "PROXY TCP4 203.208.61.208 35.244.241.122 49246 1883" 400 173 "-" "-"

```
169.254.169.254 - - [18/Dec/2019:12:18:47 +0000] "GET / HTTP/1.1" 200 616 "-" "-"
169.254.169.254 - - [18/Dec/2019:12:18:50 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:18:55 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:18:56 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:18:57 +0000] "GET / HTTP/1.1" 200 616 "-" "-"
35.191.9.25 - - [18/Dec/2019:12:18:58 +0000] "PROXY TCP4 203.208.61.208 35.244.241.122 49246 1883" 400 173 "-" "-"
169.254.169.254 - - [18/Dec/2019:12:19:00 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:19:05 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:19:06 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:19:07 +0000] "GET / HTTP/1.1" 200 616 "-" "-"
169.254.169.254 - - [18/Dec/2019:12:19:10 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:19:15 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
169.254.169.254 - - [18/Dec/2019:12:19:16 +0000] "GET / HTTP/1.1" 200 616 "-" "GoogleHC/1.0"
```

Debug:

Issue 1 返回400

```
junsong-macbookpro:~ junsong$ curl -v 35.244.241.122:1883
* Rebuilt URL to: 35.244.241.122:1883/
* Trying 35.244.241.122...
* TCP_NODELAY set
* Connected to 35.244.241.122 (35.244.241.122) port 1883 (#0)
> GET / HTTP/1.1
> Host: 35.244.241.122:1883
> User-Agent: curl/7.54.0
> Accept: */*
>
< HTTP/1.1 400 Bad Request
< Server: nginx/1.10.3
< Date: Wed, 18 Dec 2019 12:32:43 GMT
< Content-Type: text/html
< Content-Length: 173
< Connection: close
<
<html>
<head><title>400 Bad Request</title></head>
<body bgcolor="white">
<center><h1>400 Bad Request</h1></center>
<hr><center>nginx/1.10.3</center>
</body>
</html>
* Closing connection 0
junsong-macbookpro:~ junsong$
```

分析：

传递了空的头，LB 打开proxy就会出现400

```
130.211.3.13 - - [11/Mar/2020:11:51:31 +0000] "PROXY TCP4 114.255.33.128
34.107.164.208 41784 1883" 400 173 "-" "-" "-" "-"
```

```
log_format main '$remote_addr - $remote_user [$time_local] "$request" '
                '$status $body_bytes_sent "$http_referer" '
                '"$http_user_agent" "$http_x_forwarded_for" "$http_x_region";
```