Looking Glass User Guide

Nov 2019

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LeTron Entertainment Tech

Outline

1. Looking Glass Single-Query

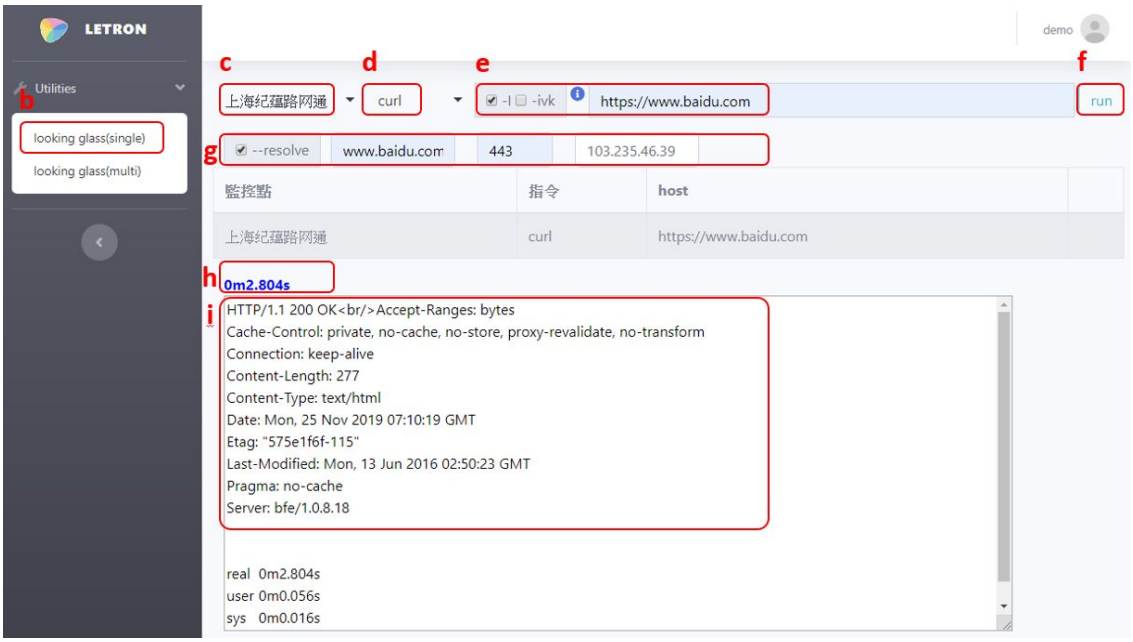
1.1. Overview

In Looking Glass Single-Query, we can only select one monitor to execute tests.

Steps:

a. Login to http://demo.letronlab.com:8089/
b. Click Utilities on left, then click looking glass(single)
c. Select one monitor E.g. 上海纪蕴路网通
d. Select one test command E.g. curl
e. Enter required parameters
f. Click run
g. Enter optional parameters then click run
h. Check total test time
i. Check result

Result:



1.2. Curl

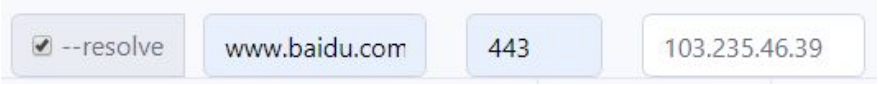
Curl command transfer data to or from a network server.

We can use curl to check URLs status and response.

Steps:

a. Select one monitor
b. Select command curl
c. Check parameters
    i. -I --only get header result
    ii. -ivk --get complete result
d. Enter one URL (http/https)
e. Click run

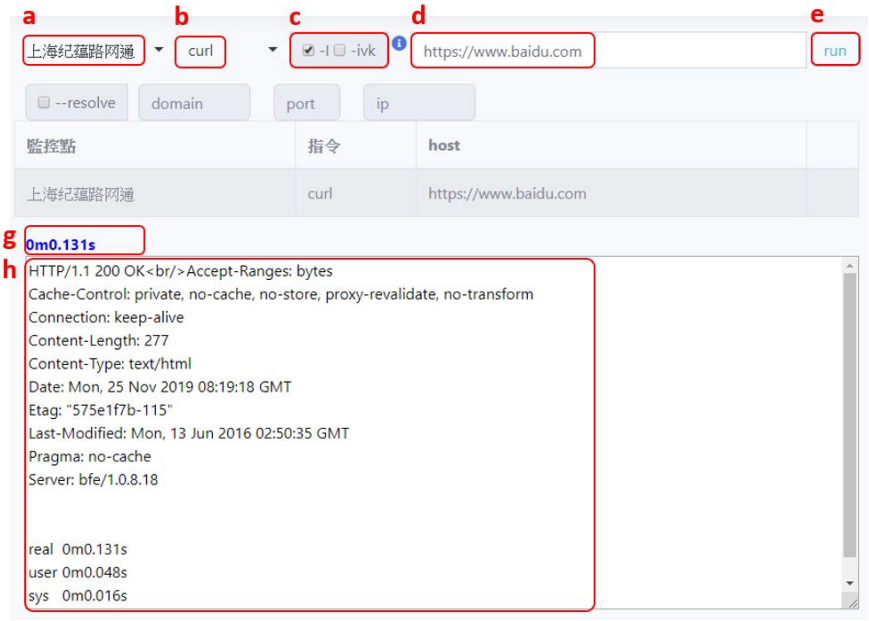
f. (Optional) If you want to use your choice IP to resolve your domain, check --resolve then enter domain, port and ip



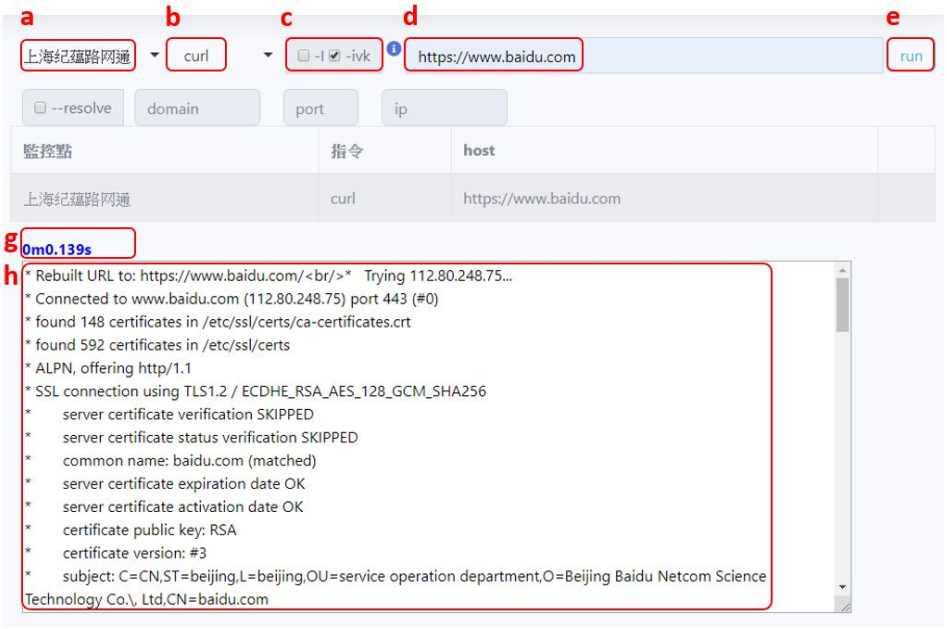
g. Check total test time
h. Check result

Results:

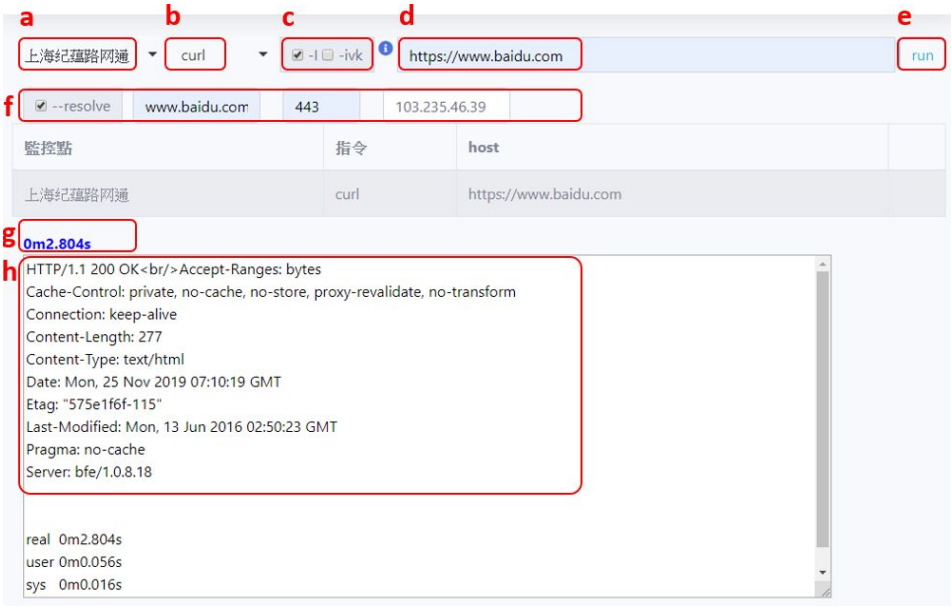
Parameters -I (only get header result)



Parameters -ivk (get complete result)



Check --resolve with your choice resolve ip



1.3. Tcping

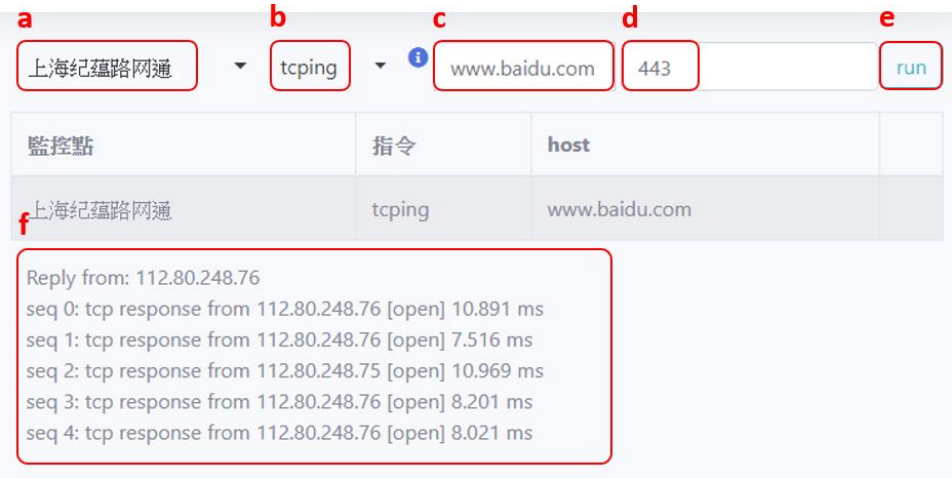
Tcping is utilized to test the reachability of a host or an IP.

It can also monitor the state of a port.

Steps:

a. Select monitor
b. Select command tcping
c. Enter domain or IP
d. Enter port
e. Click run
f. Check result

Result:



1.4. Ping

Ping is utilized to test the reachability of a host or an IP.

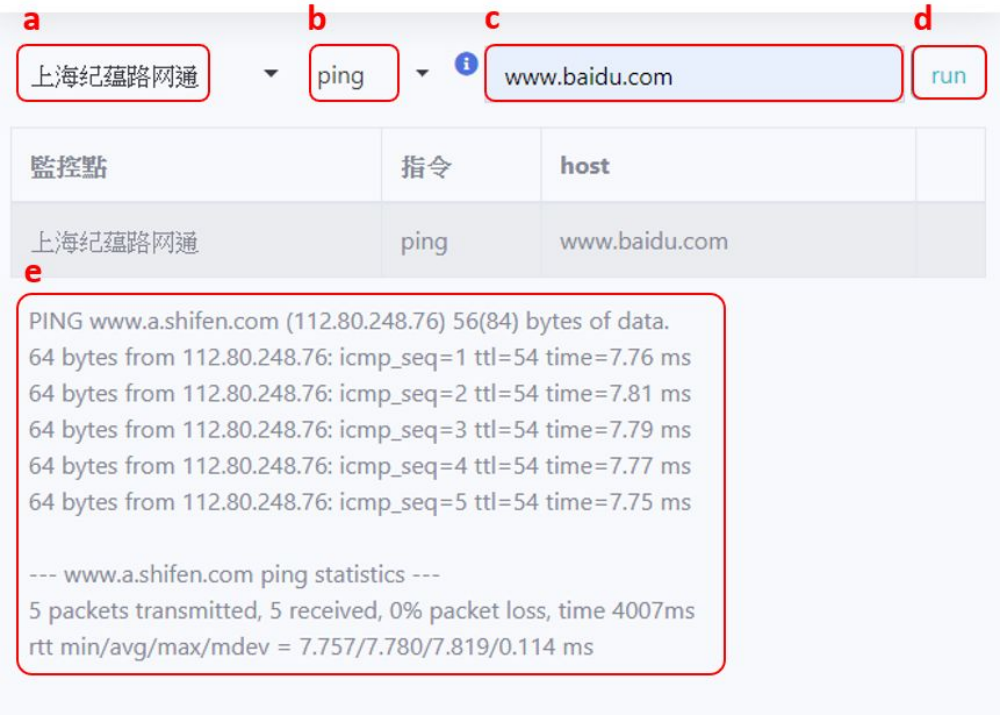
It also measures the RTT (round-trip time) for messages sent from the originating host to a destination computer that are echoed back to the source.

Looking glass sends 5 packets for testing.

Steps:

a. Select monitor
b. Select command ping
c. Enter domain or IP
d. Click run
e. Check result

Result:



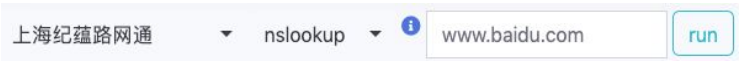
1.5. Nslookup

You can use nslookup to determine the IP address associated with a domain name.

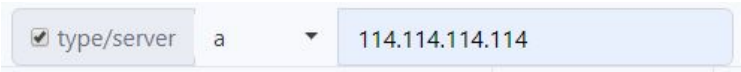
It can also be used for testing and troubleshooting DNS servers.

Steps:

a. Select monitor
b. Select command nslookup
c. Enter domain
d. Click run



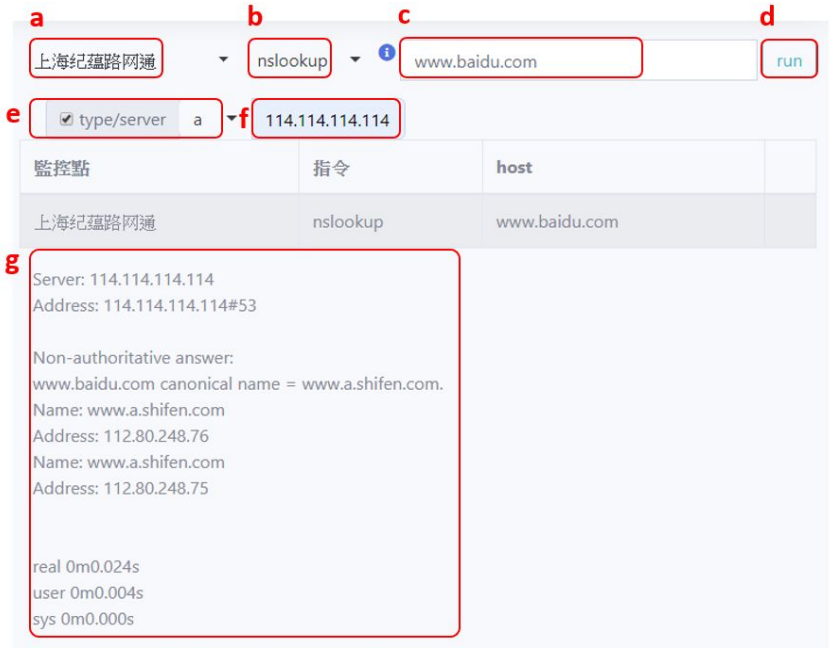
e. (Optional) Check type/server and select parameters
   i. a --type=a record
   ii. any --type=any
   iii. ns --type=nameserver
f. (Optional) Enter dns server to assign nameserver



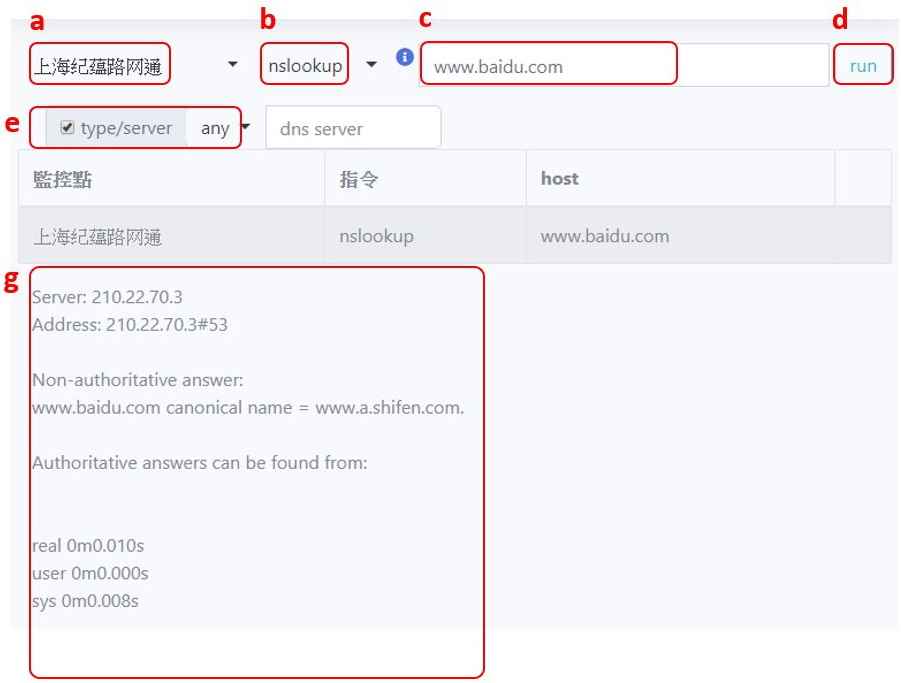
g. Check result

Results:

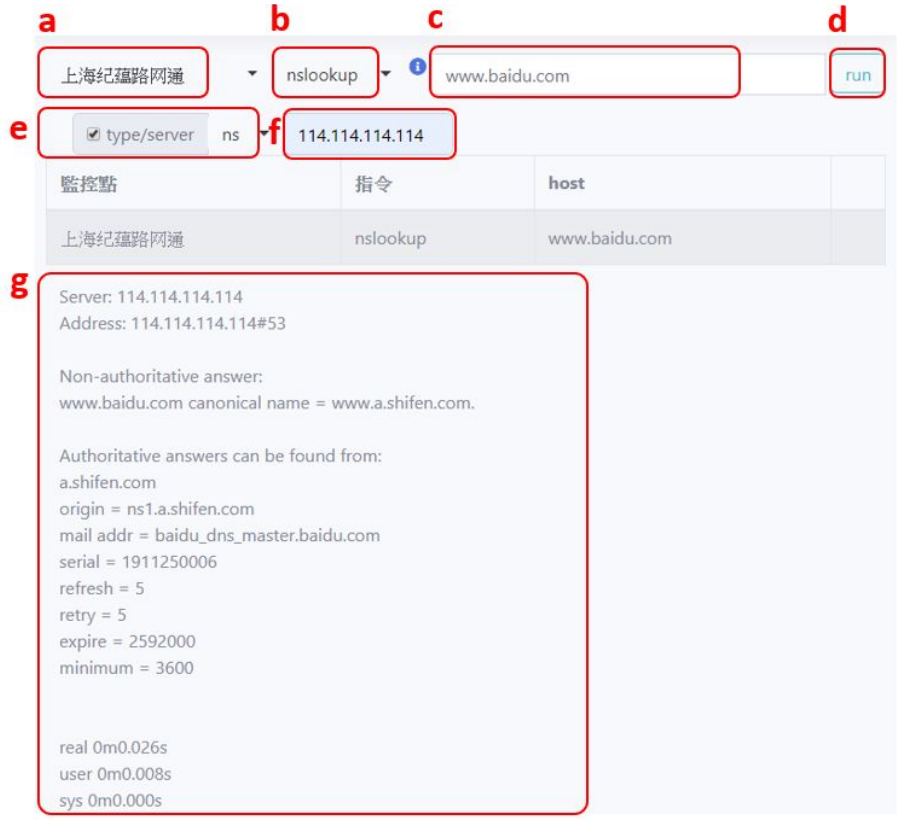
type=a and assign nameserver (optional)



type=any



type=ns and assign nameserver (optional)



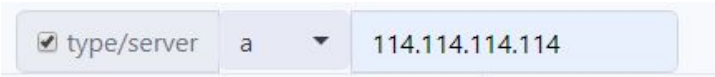
1.6. Dig

The command dig is a tool for querying DNS nameservers for information about host addresses, nameservers, and related information.

Steps:

a. Select monitor
b. Select command dig
c. Enter domain

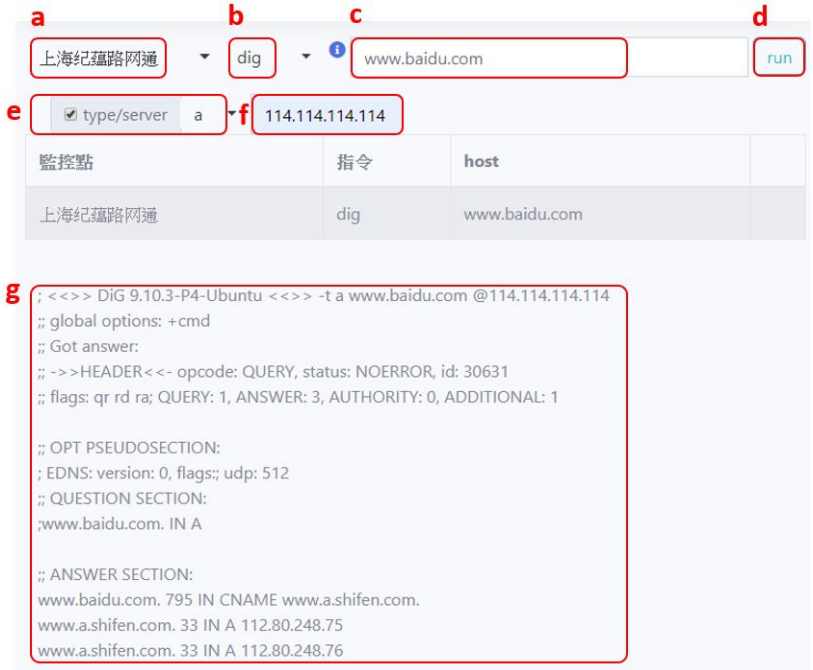
d. Click run
e. (Optional) Check type/server and select parameters
    i. a --type=a record
    ii. any --type=any
    iii. ns --type=nameserver
f. (Optional) Enter dns server to assign nameserver



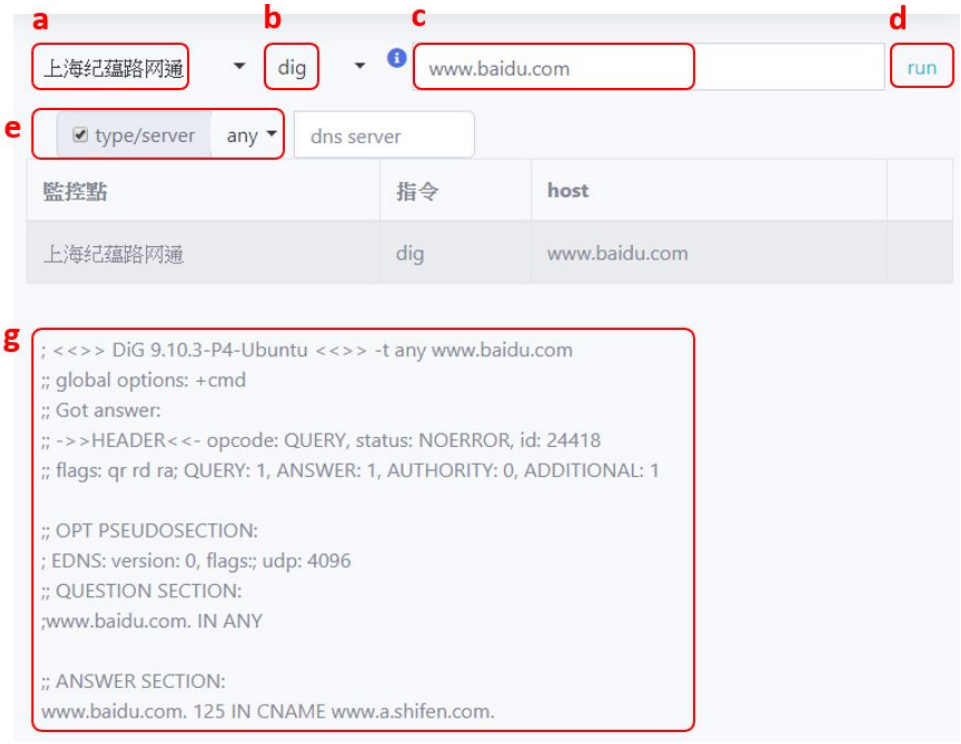
g. Check result

Results:

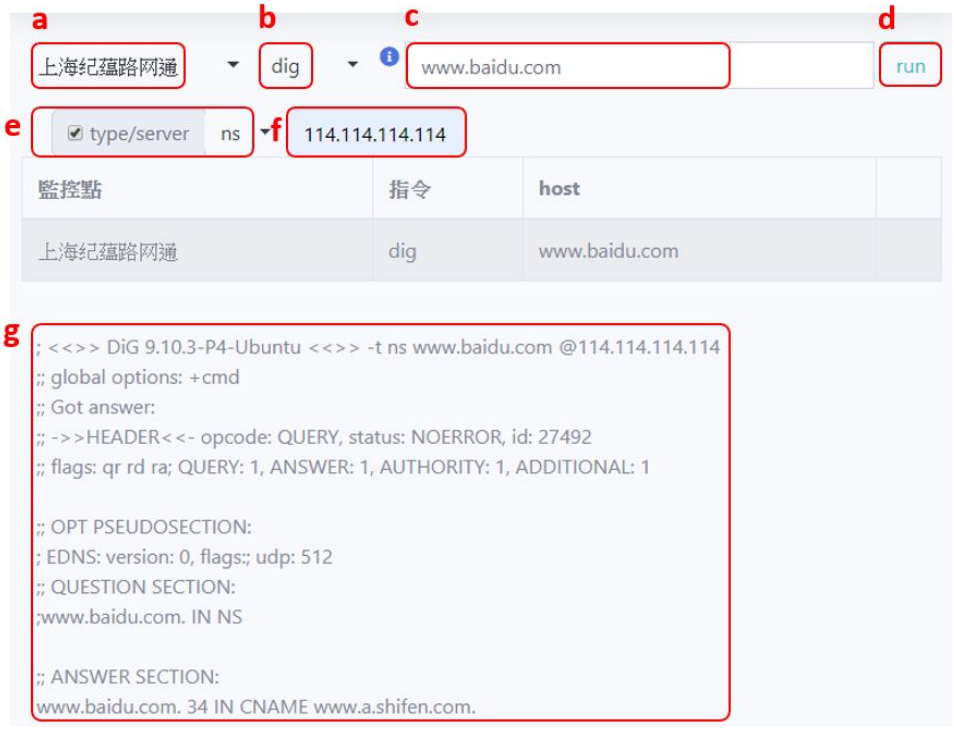
type=a and assign nameserver (optional)



type=any



type=ns and assign nameserver (optional)



1.7. MTR

MTR shows a list of routers traversed, and the average RTT and packet loss to each router, it helps users to identify network problems.

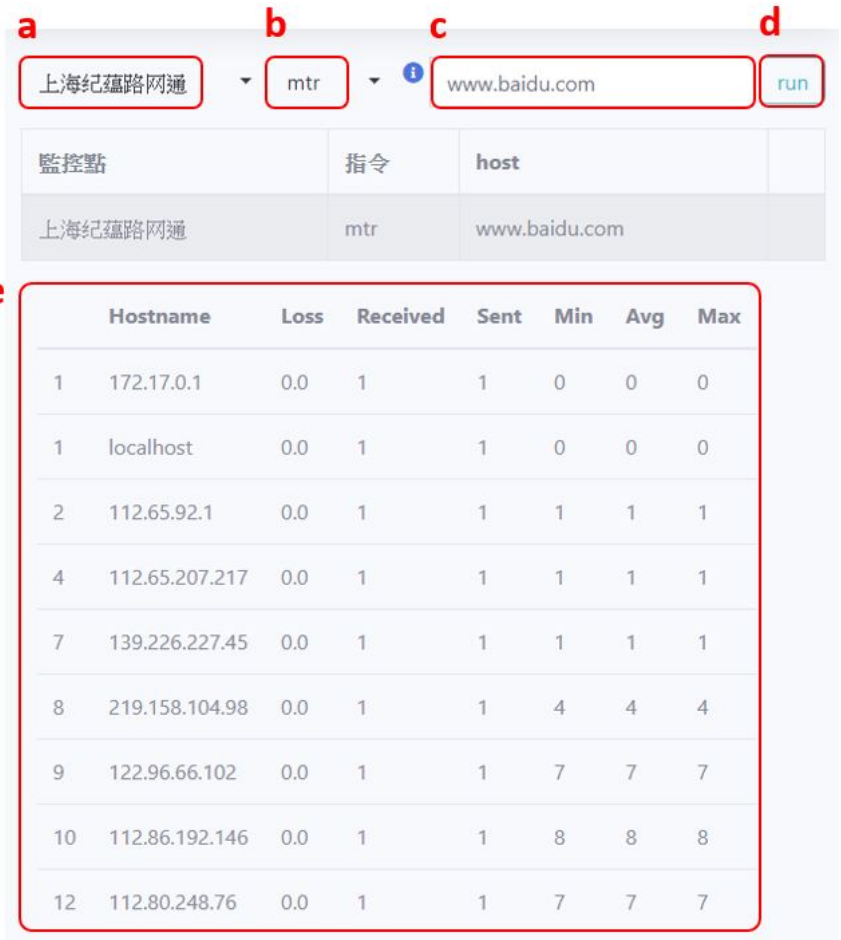
Looking glass sends 1 packet for testing.

Steps:

a. Select monitor
b. Select command mtr
c. Enter domain or IP

d. Click run
e. Check result

Result:



	Hostname	Loss	Received	Sent	Min	Avg	Max
1	172.17.0.1	0.0	1	1	0	0	0
1	localhost	0.0	1	1	0	0	0
2	112.65.92.1	0.0	1	1	1	1	1
4	112.65.207.217	0.0	1	1	1	1	1
7	139.226.227.45	0.0	1	1	1	1	1
8	219.158.104.98	0.0	1	1	4	4	4
9	122.96.66.102	0.0	1	1	7	7	7
10	112.86.192.146	0.0	1	1	8	8	8
12	112.80.248.76	0.0	1	1	7	7	7

1.8. HAR

HAR provides tracking information between a web browser and a website in json format. It includes breakdown of timings such as

- Fetch DNS information
- Request each object
- Connect to server
- Transfer each object from the server to website

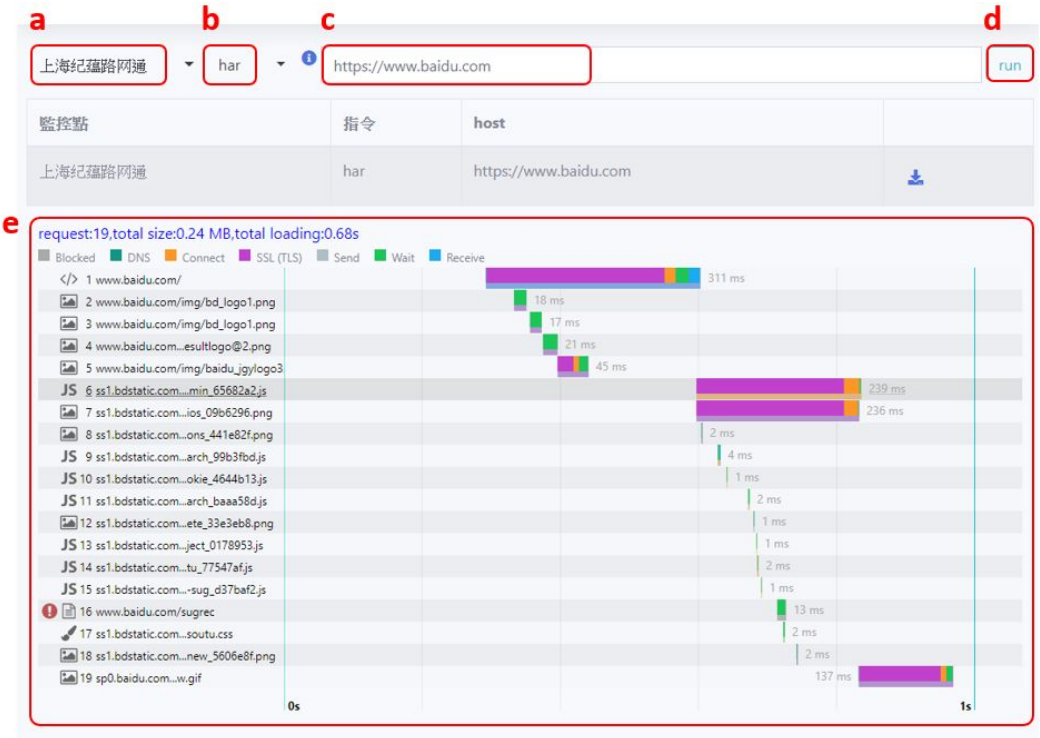
Looking glass visualizes information based on .har file gathered from monitors. Also, users are able to download .har file from looking glass after each testing.

Steps:

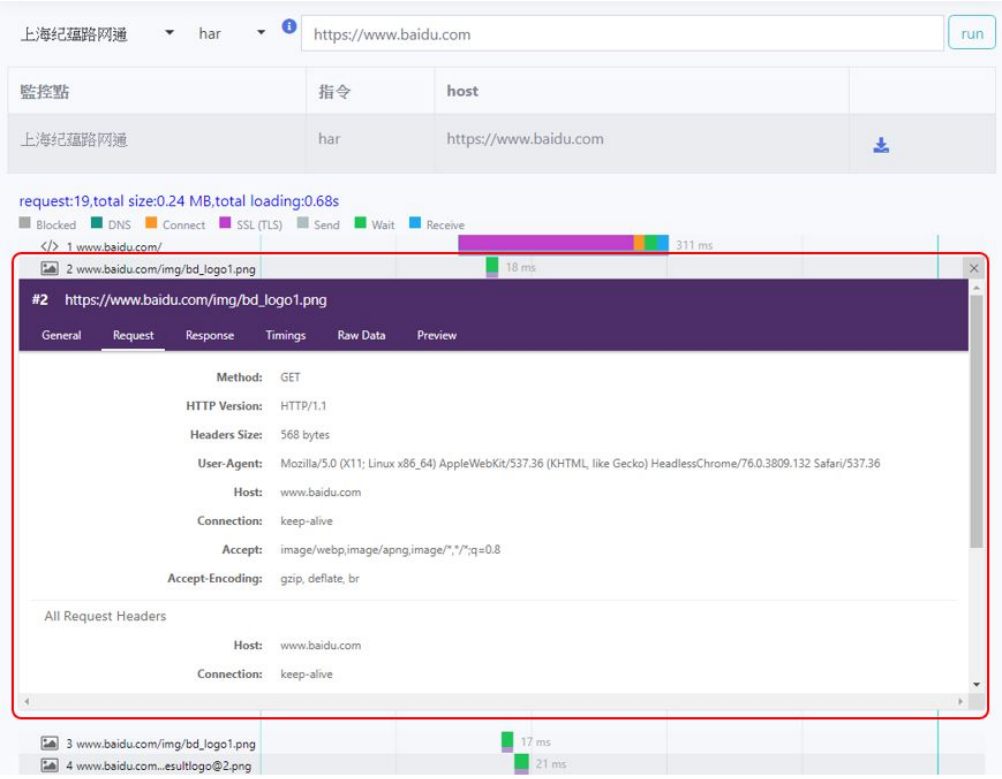
a. Select monitor
b. Select command har
c. Enter URL (http/https)

d. Click run
e. Check result

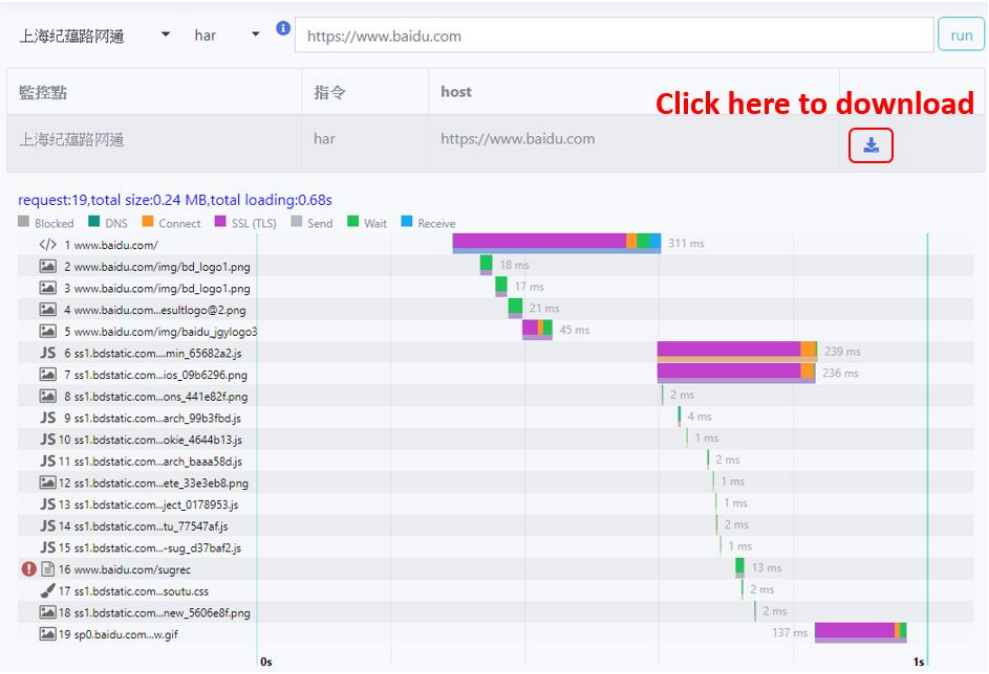
Results:



(Optional) Expand result for detail



(Optional) Download .har file



1.9. WS

WebSockets provide a persistent connection between a client and server that both parties can use to start sending data at any time.

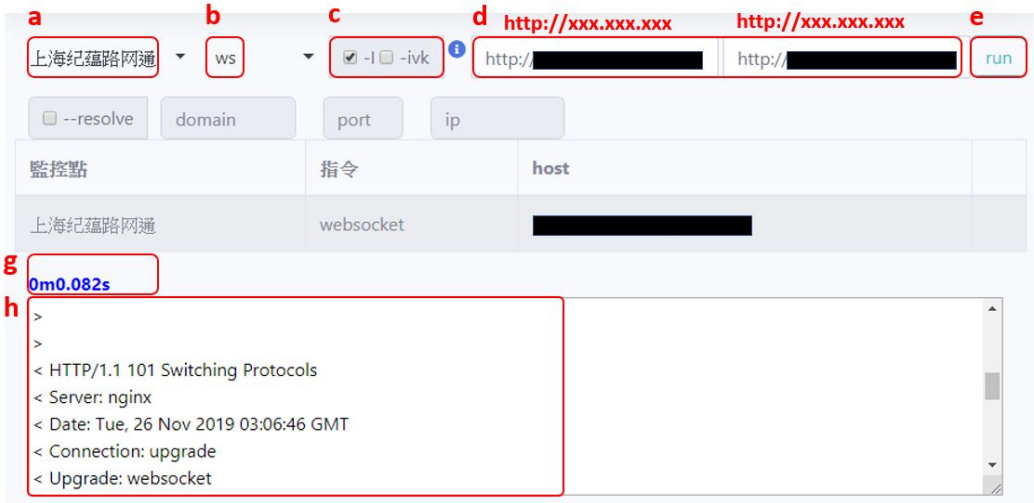
We can use ws to check sites status and response with websocket protocol.

Steps:

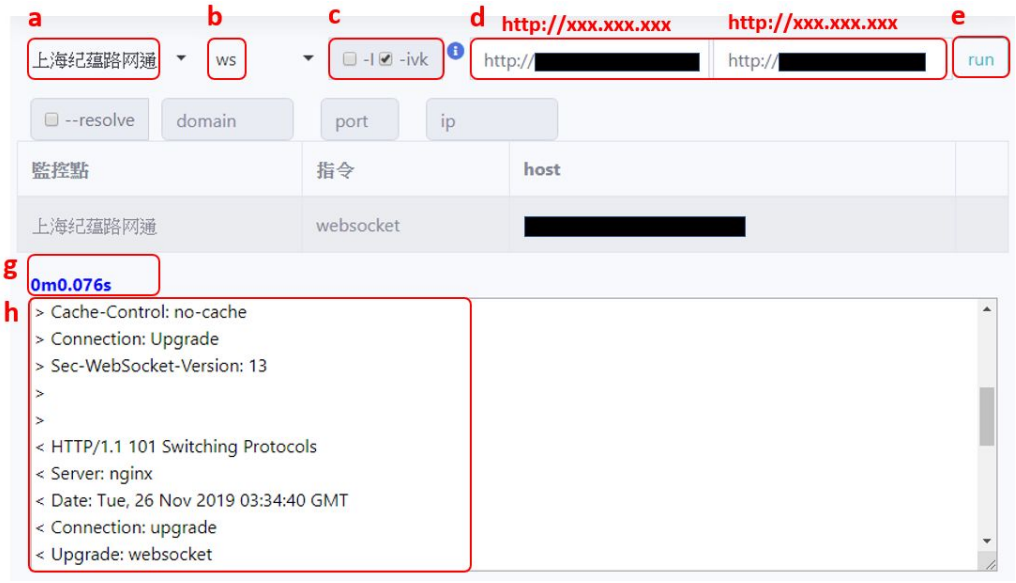
a. Select one monitor
b. Select command ws
c. Check parameters
   i. -I --only get header result
   ii. -ivk --get complete result
d. Enter URL(http/https) and origin URL(http/https)

e. Click run
f. (Optional) Check --resolve to use your choice resolve ip, enter domain, port and ip
g. Check total test time
h. Check results
i. Result

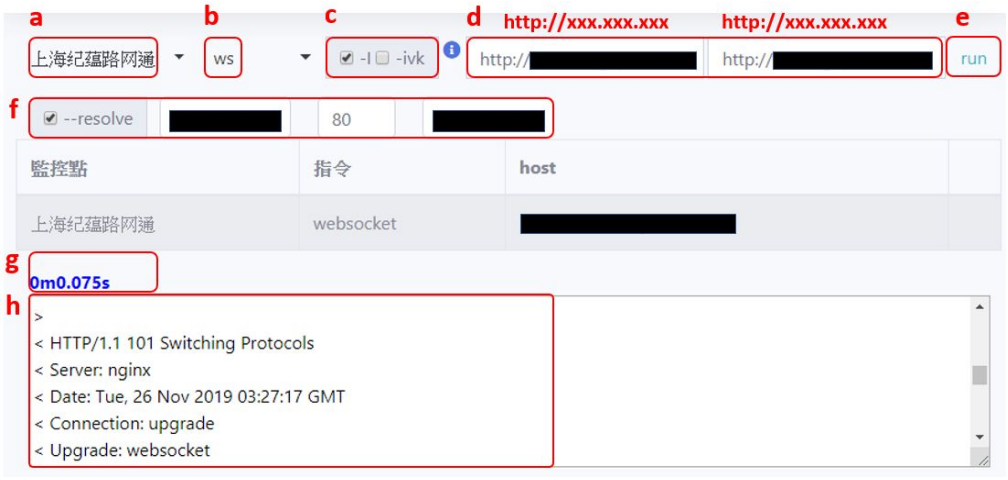
Parameters -I (only get header result)



Parameters -ivk (get complete result)



Check --resolve (with your choice resolve ip)



2. Looking Glass Multi-Query

2.1. Overview

In Looking Glass Multi-Query, we can select multiple monitors to execute tests.

You can also select monitors by region or select all.

Futures:

- Select multiple monitors
- Select monitors by region or select all
- Status code show different color if result is unexpected
- Total time more than 1 second is descending order
- Refresh button  : Select any monitor to test again
- Play button  : Select any monitor to test for 10 times and show result

Steps:

a. Login to http://demo.letronlab.com:8089/
b. Click Utilities on left, then click looking glass(multi)
c. Select multiple monitors
d. Select one test command E.g. dig
e. Enter required parameters
f. Click run
g. Check result
h. Check total test time
i. Click refresh button  to test again
j. Click play button  to test for 10 times and check result

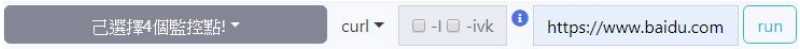
2.2. Curl

Curl command transfer data to or from a network server.

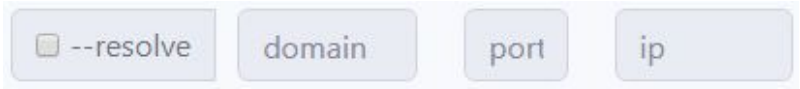
We can use curl to check URLs status and response.

Steps:

a. Select monitors, can also select by region or select all
b. Select command curl
c. Check parameters
   i. -I --only get header result
   ii. -ivk --get complete result
d. Enter one URL (http/https)
e. Click run



f. (Optional) If you want to use your choice resolve IP to resolve your domain, check --resolve then enter domain, port and ip



g. Check result

Results:

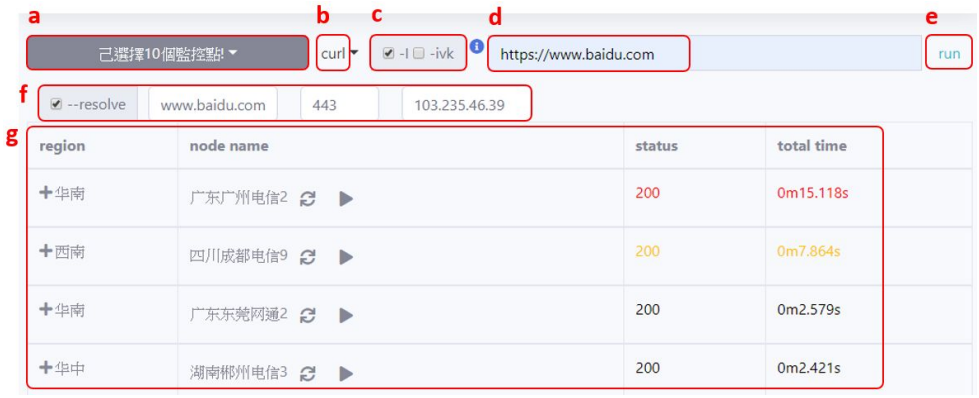
Parameters -I (only get header result, expand it to check header)

Parameters -ivk (get complete result, expand it to check content)

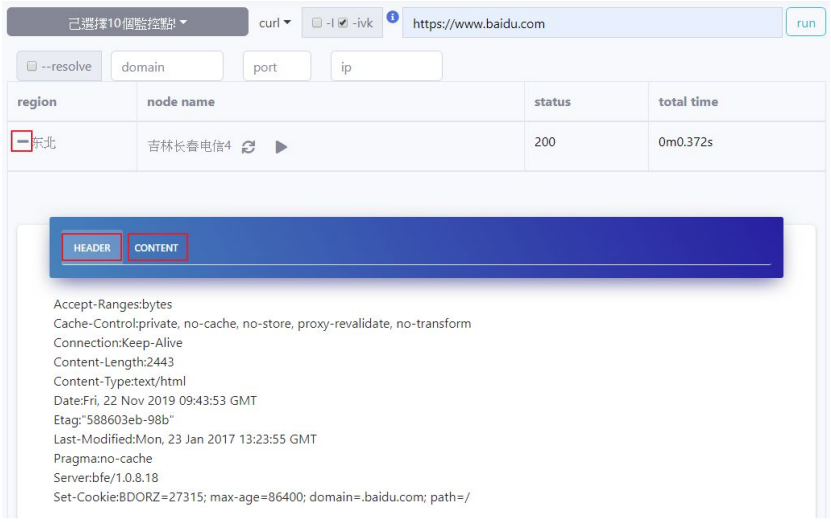
Check --resolve (assign your choice resolve ip)

If status code is unexpected, it will show different color

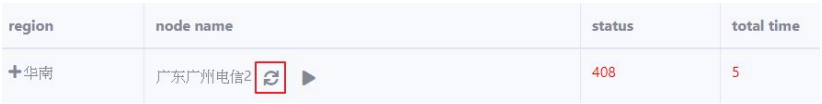
Total time is descending order



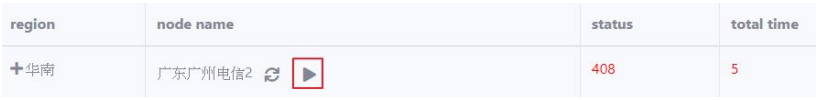
(Optional) Expand result for detail



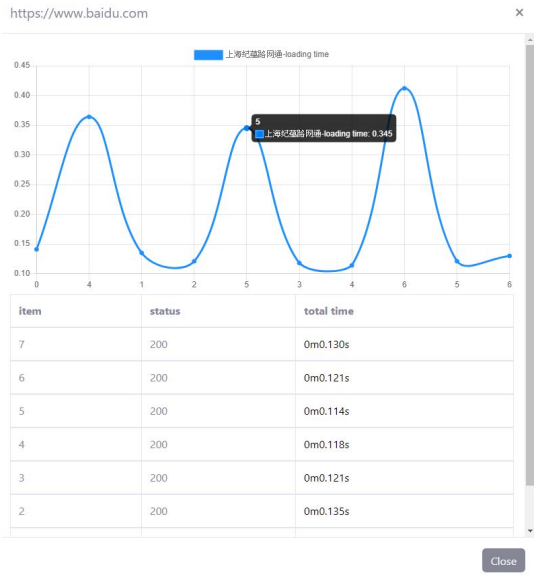
(Optional) Click “refresh” button to test again



(Optional) Click “play” button to test for 10 times



Check test result and graph



2.3. WS

WebSockets provide a persistent connection between a client and server that both parties can use to start sending data at any time.

We can use ws to check sites status and response with websocket protocol.

Steps:

a. Select monitors, can also select by region or select all
b. Select command ws
c. Check parameters
    i. -I --only get header result
    ii. -ivk --get complete result
d. Enter URL and origin URL

e. Click run
f. (Optional) Check --resolve to use your choice resolve ip, enter domain, port and ip

g. Check result

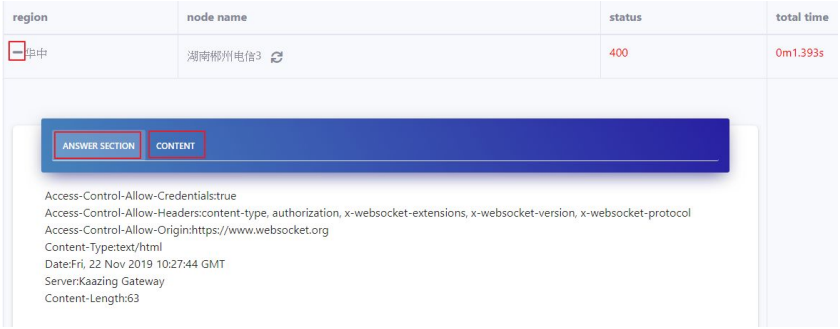
Results:

Parameters -I (only get header result, expand it to check header)

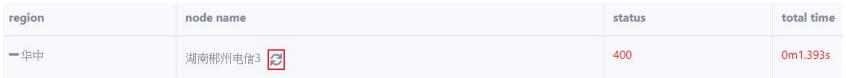
Parameters -ivk (get complete result, expand it to check content)

Check --resolve (assign your choice resolve ip)

(Optional) Expand result for detail



(Optional) Click “refresh” button to test again



2.4. Dig

The command dig is a tool for querying DNS nameservers for information about host addresses, nameservers, and related information.

Steps:

a. Select monitors, can also select by region or select all
b. Select command dig
c. Enter domain

d. Click run
e. (Optional) Check type/server and select parameters
   i. a --type=a record
   ii. any --type=any
   iii. ns --type=nameserver
f. (Optional) Enter dns server to assign nameserver

g. Check result

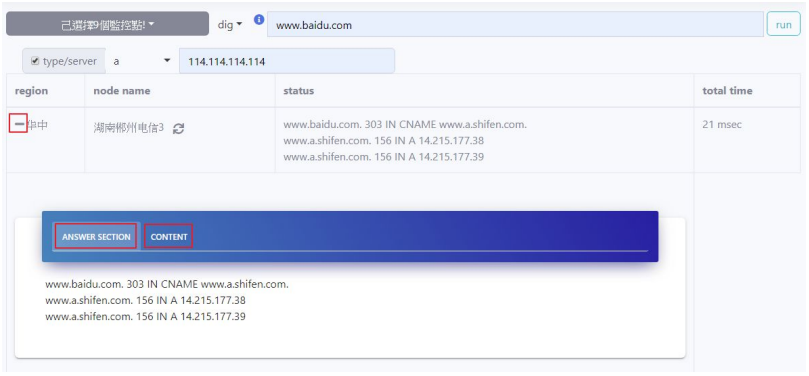
Results:

type=a and assign nameserver (optional)

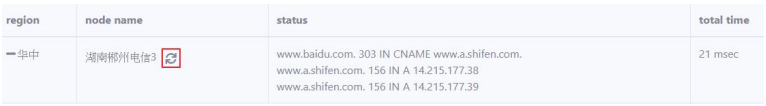
type=any

type=ns and assign nameserver (optional)

(Optional) Expand result for detail



(Optional) Click “refresh” button to test again



2.5. Ping

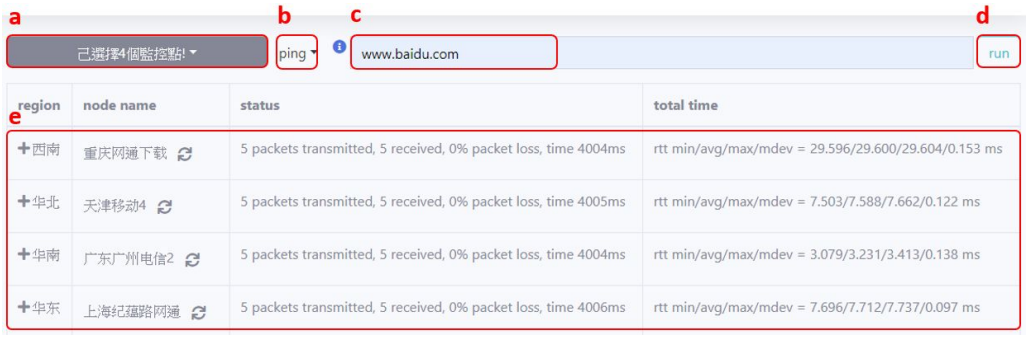
Ping is a basic tool that allows users to verify that a particular IP address exists and can accept requests.

Steps:

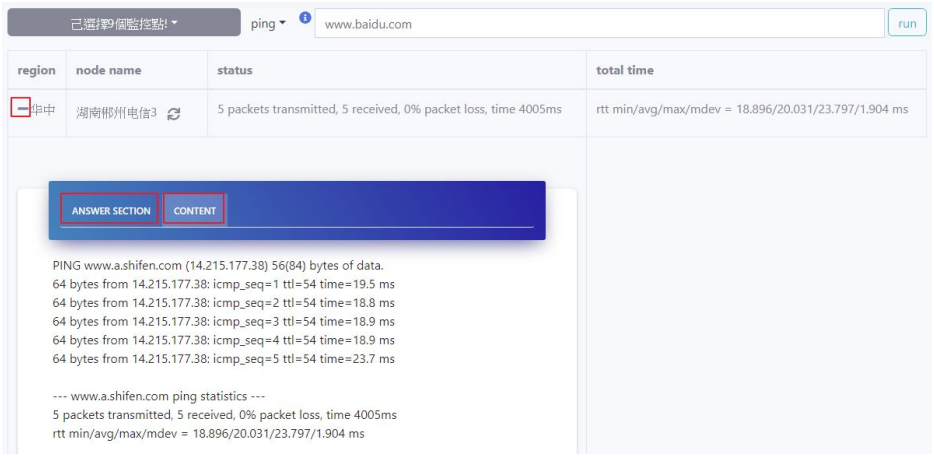
a. Select monitors, can also select by region or select all
b. Select command ping
c. Enter domain or IP

d. Click run
e. Check result

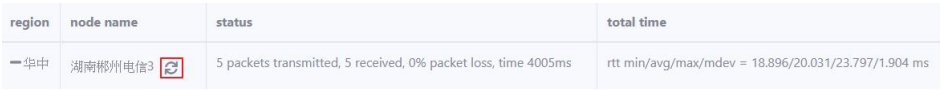
Results:



(Optional) Expand result for detail



(Optional) Click “refresh” button to test again



2.6. Tcping

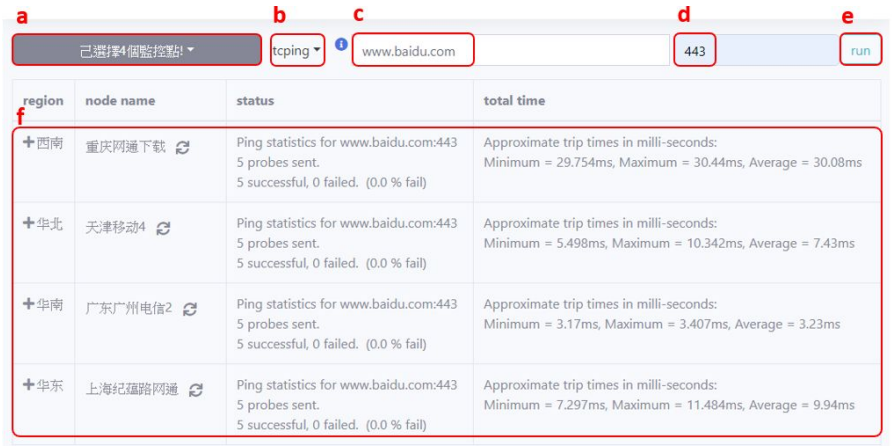
Tcping is utilized to test the reachability of a host or an IP.

It can also monitor the state of a port.

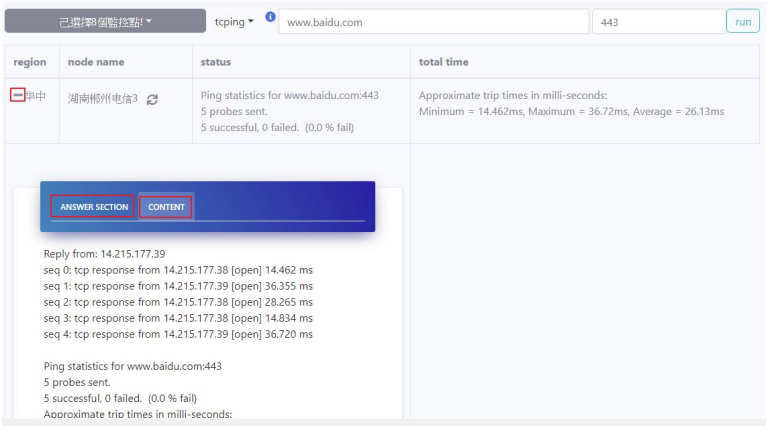
Steps:

a. Select monitors, can also select by region or select all
b. Select command tcping
c. Enter domain or IP
d. Enter port
e. Click run
f. Check result

Results:



(Optional) Expand result for detail



(Optional) Click “refresh” button to test again

3. Appendix

3.1. Overview

We provide about 100 monitors to execute tests from different regions.

3.2. Monitors list

Here is 100 monitors with region and ISP.

#	Region	ISP	Monitor Name
1	亞太AsiaPacific	NTT	新加坡Sin1
2	亞太AsiaPacific	CMC	越南胡志明市CMC
3	亞太AsiaPacific	Telenor	缅甸曼德勒Telenor
4	亞太AsiaPacific	CBN	印尼雅加达CBN
5	亞太AsiaPacific	Purplestones	韩国首尔SEL7
6	亞太AsiaPacific	電信	香港HK4
7	华南Huanan	电信	广东广州电信2
8	华南Huanan	网通	广东广州网通6
9	华南Huanan	移动	广东广州移动5
10	华南Huanan	移动	广东中山移动4
11	华南Huanan	网通	广东东莞网通2
12	华南Huanan	移动	广东汕头移动
13	华南Huanan	电信	广东江门电信4
14	华南Huanan	电信	广东佛山电信6
15	华南Huanan	移动	广东佛山移动2
16	华南Huanan	移动	广东惠州移动
17	华南Huanan	网通	广东揭阳网通4
18	华南Huanan	电信	广东湛江电信5
19	华南Huanan	电信	广西南宁电信3
20	华南Huanan	移动	广西南宁移动3

21	华南Huanan	电信	海南电信3
22	华南Huanan	网通	海南网通
23	华南Huanan	移动	海南移动2
24	华南Huanan	电信	福建泉州电信
25	华南Huanan	网通	福建厦门网通下载
26	华南Huanan	移动	福建厦门移动4
27	华南Huanan	电信	福建福州电信13
28	华东Huadong	移动	江苏扬州移动3
29	华东Huadong	电信	浙江温州电信13
30	华东Huadong	移动	安徽淮北移动
31	华东Huadong	电信	江西景德镇电信2
32	华东Huadong	移动	山东枣庄移动
33	华东Huadong	移动	安徽合肥移动4
34	华东Huadong	电信	江苏南通电信3
35	华东Huadong	电信	浙江金华电信6
36	华东Huadong	移动	浙江杭州石桥移动
37	华东Huadong	移动	浙江宁波移动
38	华东Huadong	网通	山东淄博网通
39	华东Huadong	电信	山东青岛电信下载
40	华东Huadong	移动	江西南昌移动7
41	华东Huadong	电信	江西吉安电信
42	华东Huadong	网通	江苏扬州南网通
43	华东Huadong	移动	江苏连云港移动
44	华东Huadong	网通	安徽芜湖网通
45	华东Huadong	移动	江苏移动8
46	华东Huadong	网通	上海纪蕴路网通

47	华北Huabei	电信	北京北工大电信
48	华北Huabei	网通	北京硅谷网通
49	华北Huabei	移动	北京移动3
50	华北Huabei	电信	天津电信
51	华北Huabei	移动	天津移动4
52	华北Huabei	网通	天津空港网通
53	华北Huabei	网通	山西临汾网通3
54	华北Huabei	移动	山西太原移动5
55	华北Huabei	电信	山西晋中电信
56	华北Huabei	网通	山西运城网通
57	华北Huabei	电信	河北张家口电信
58	华北Huabei	电信	河北怀来电信
59	华北Huabei	电信	河北石家庄电信5
60	华北Huabei	移动	河北石家庄移动4
61	西南Xinan	移动	云南昆明移动4
62	西南Xinan	网通	云南昆明网通5
63	西南Xinan	电信	云南曲靖电信下载2
64	西南Xinan	电信	云南楚雄电信2
65	西南Xinan	网通	四川南充网通下载
66	西南Xinan	电信	四川成都电信9
67	西南Xinan	移动	四川成都移动2
68	西南Xinan	电信	四川绵阳电信3
69	西南Xinan	移动	贵州贵安移动2
70	西南Xinan	网通	贵州贵阳网通8
71	西南Xinan	电信	贵州黔西南电信
72	西南Xinan	电信	重庆水土电信

73	西南Xinan	移动	重庆移动5
74	西南Xinan	网通	重庆网通下载
75	华中Huazhong	电信	河南洛阳电信2
76	华中Huazhong	电信	河南新乡电信2
77	华中Huazhong	网通	河南漯河网通2
78	华中Huazhong	移动	河南郑州移动3
79	华中Huazhong	电信	湖北孝感电信5
80	华中Huazhong	网通	湖北武汉网通5
81	华中Huazhong	移动	湖北襄阳移动
82	华中Huazhong	网通	湖北随州网通2
83	华中Huazhong	移动	湖南岳阳移动2
84	华中Huazhong	网通	湖南岳阳网通2
85	华中Huazhong	电信	湖南郴州电信3
86	华中Huazhong	网通	湖南郴州网通
87	西北Xibei	电信	甘肃兰州电信13
88	西北Xibei	电信	甘肃天水电信2
89	西北Xibei	移动	陕西咸阳移动4
90	西北Xibei	网通	陕西宝鸡网通3
91	西北Xibei	电信	陕西西咸电信2
92	东北Dongbei	电信	吉林长春电信4
93	东北Dongbei	移动	吉林长春移动
94	东北Dongbei	网通	辽宁丹东网通3
95	东北Dongbei	电信	辽宁朝阳电信2
96	东北Dongbei	移动	辽宁沈阳移动2
97	东北Dongbei	网通	辽宁沈阳网通7
98	东北Dongbei	电信	辽宁铁岭电信2

99	东北Dongbei	电信	黑龙江哈尔滨电信10
100	东北Dongbei	电信	黑龙江牡丹江电信2
101	东北Dongbei	网通	黑龙江绥化网通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