
F5 Networks Japan Technical Information Documentation

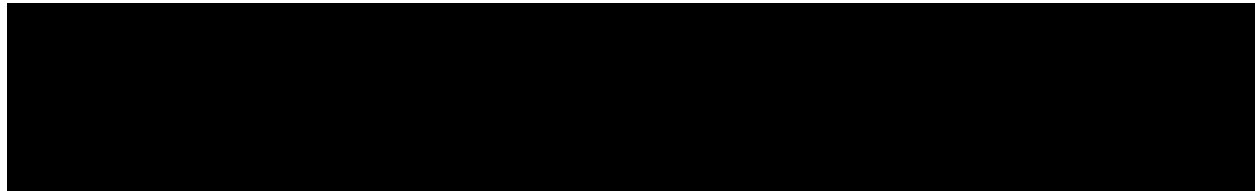
F5 Networks, Inc.

May 24, 2023

F5 2023 Read The Docs Guide

NGINX Plus Lab (Back To Basic)

F5??????????????????



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1.1 ????

- ??????????Invite??
- ?????????? git , jq , sudo, curl
- NGINX Trial?????????????????????????????Home Directory???

1.2 ??? (UDF(Unified Demonstration Framework)) ??????????????

??

??

Google Chrome?Support??

??UDF Supported Browsers and Clients

1.2.1 ????????

1.2.2 RDP??

a. Windows Jump Host??RDP??

Note: ?????????????????RDP???????????????????? b. Windows Jump Host?VNC??? ??????????

Windows Jump Host??CLI????????????????RDP Client????????????????????

Note:

RDP?User????????DETAILS????????General????Credentials?????????
user ??????????????

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b. Windows Jump Host?VNC???

vnc-windows? vnc-win ??????????????

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????????????? admin ??????????

Windows????????????????VNC????????? Ctrl+Alt+Del??? ?????????

????????????????????? ????????? ?????????????????? a. *Windows Jump Host??RDP??*
?????????????????????

-

-

1.2.3 SSH???

Windows Jump Host????????????SSH Client?? ubuntu01 ????????

-

-



2.1 1. NGINX Plus??????? (15min)

????????????????NGINX Plus ??????????
???Installing NGINX Plus on Ubuntu

Note: ??????????NGINX Plus???NGINX App Protect WAF?NGINX App Protect Dos?????????????????
????????????????????????????????

2.1.1 1. NGINX License?????????

??
??

Note: ??????????????????Jump Host?????????ubuntu-01?????????pscp??



2.1.2 2. ????????

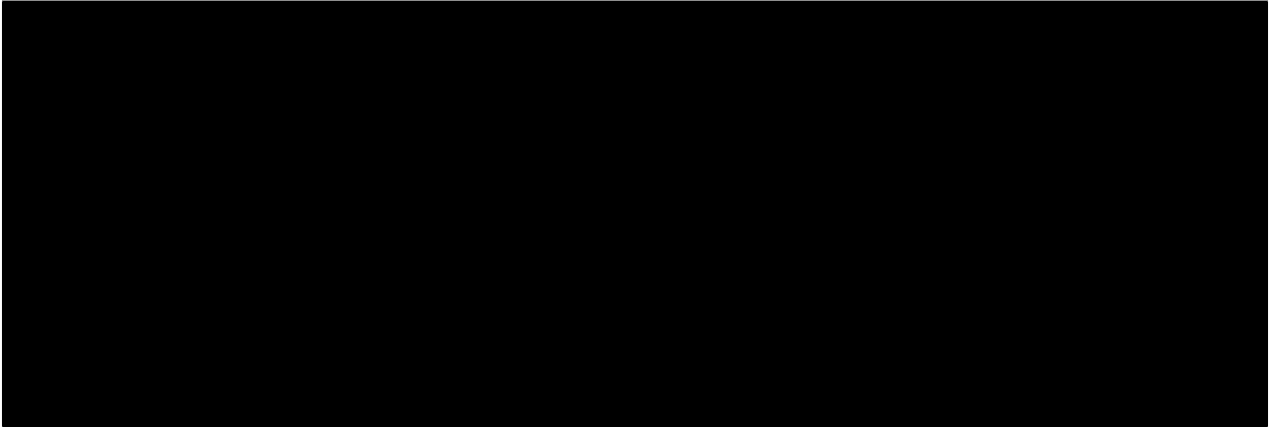
NGINX?App Protect WAF ? App Protect DoS ??????????????????????



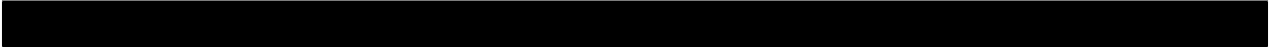
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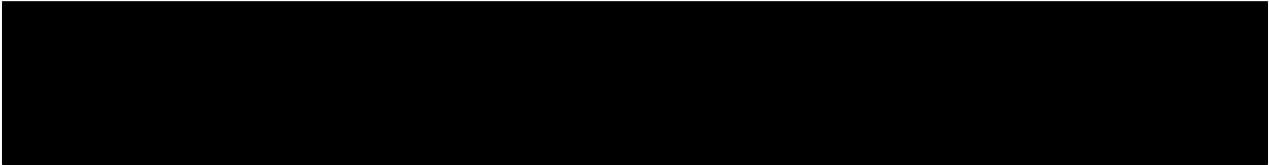
apt????????????????



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2.1.3 3. NGINX ??????????????



????????????????????

????????????????

K72015934: Display the NGINX software version



NGINX App Protect ?Version

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NGINX ???????

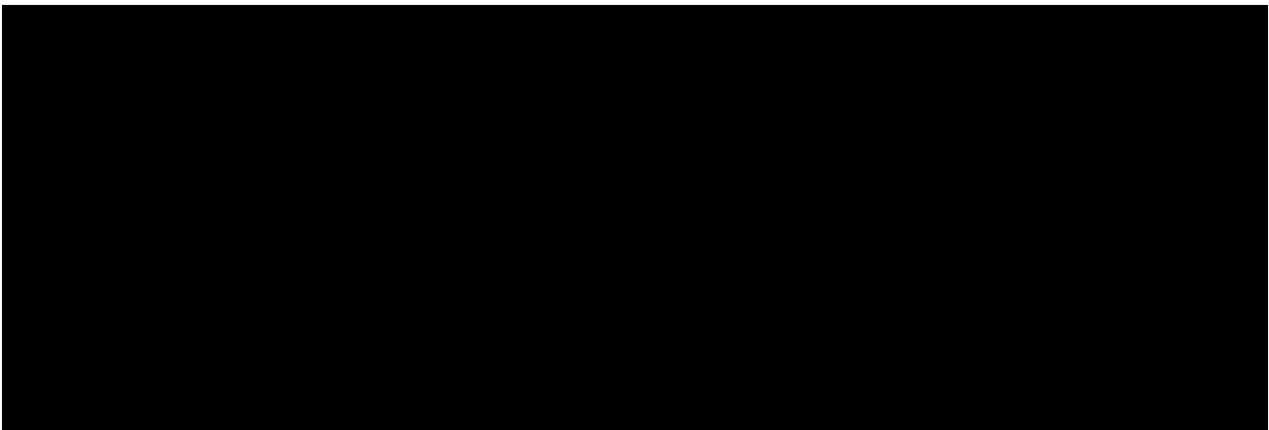


NGINX ?status??????



Listing 3: ?????????

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12
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pid????????????????



Listing 4: ??????????

1



pid????????????



Listing 5: ??????????

1



????????????



Listing 6: ??????????

1



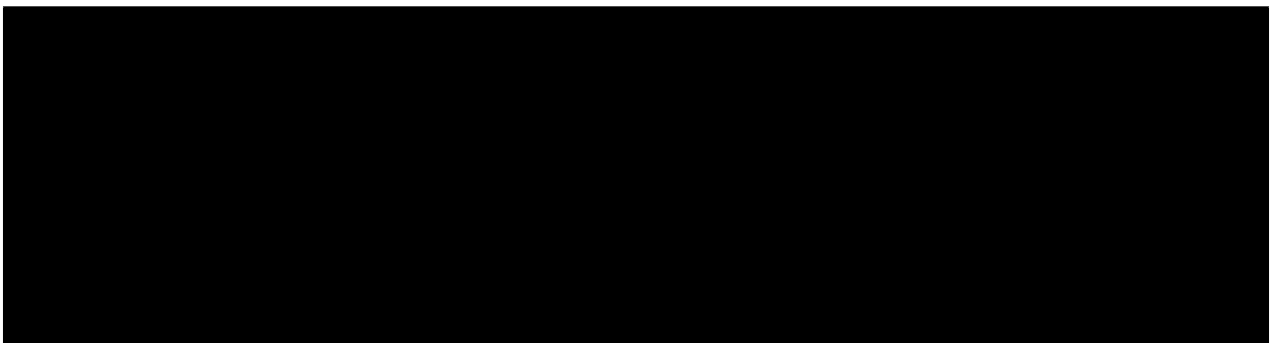
NGINX Process??????

NGINX?Master Process????????Worker Process??????Worker Process?CPUCore????????????????????????
Master Process?PID?PID??
Core??



Listing 7: ??????????

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5
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2.2.2 2. Directive / Block (5min)

•

2.2.3 3. Config????? (5min)

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2.3 3. ??????????

2.3.1 1. ?????????? (5min)

?????????????GitHub?????????



2.3.2 2. ?????????????? (10min)

????????????????????????????????????



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Listing 8: ????????

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?????????Signal?????????????????

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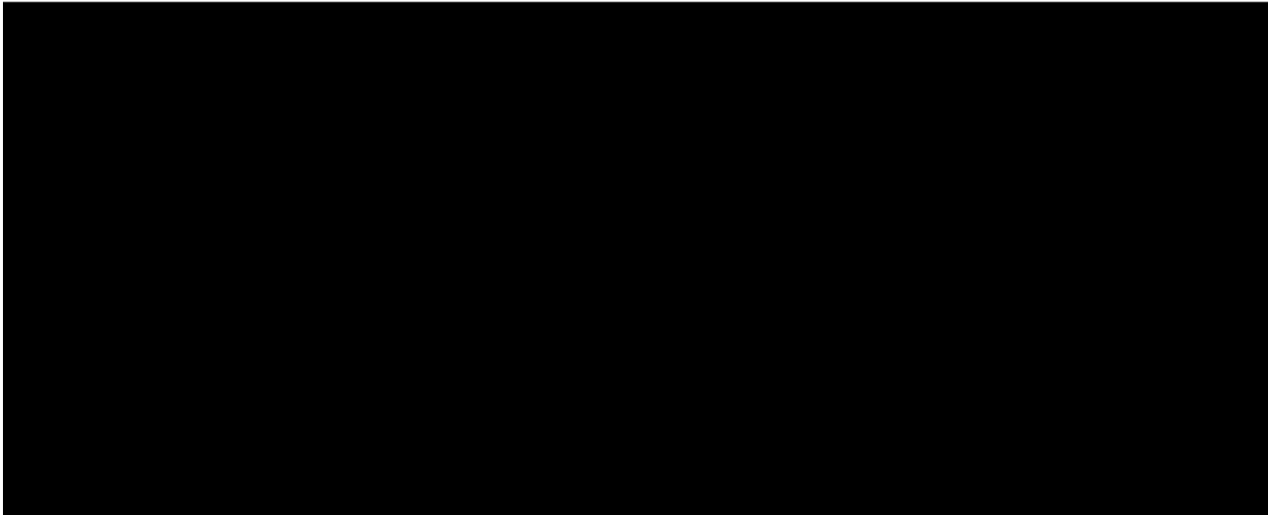
NGINX Config File??

-t ? -I ?????????????????????????????????

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Listing 9: ????????

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Listing 10: ????????

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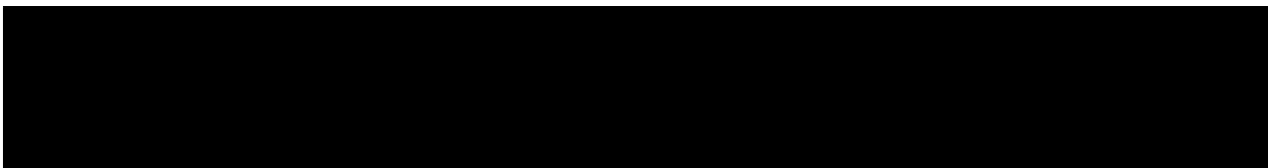


“server_name” directive ?????????????????? ??????????????????(?????)????????????????????
????????????????????????????



Listing 11: ????????

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-t ???



Listing 12: ????????

1
2

-T ???

Listing 13: ????????

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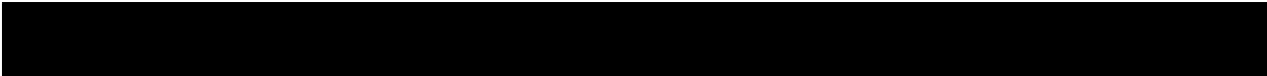
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46
47
48

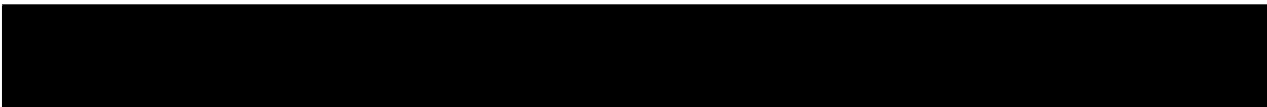


????????????????
??? Port 81 ?Listen????????????



Listing 14: ????????

1



curl????????



Listing 15: ????????

1



2.3.3 3. ????? (10min)

????????????????



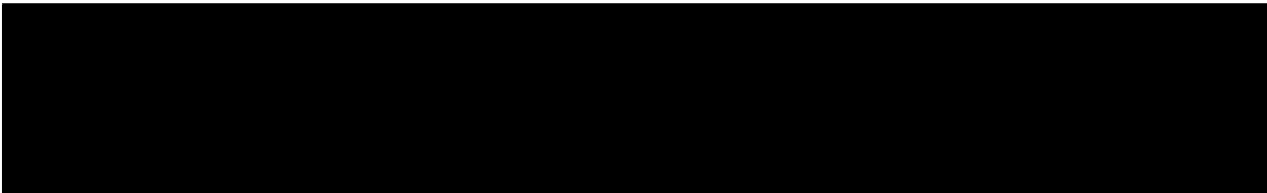
????????????????
?????index????????

listen 80???index????????????? listen 8080??? index??? main.html ?????????? ??????? root
????????????????



Listing 16: ????????

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6



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7
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10



????????????????????????????????????



Listing 17: ??????????

1
2



Port 80 ???curl????????????



Listing 18: ??????????

1



Port 8080 ???curl????????????



Listing 19: ??????????

1



2.3.4 4. server directive (10min)

NGINX????????????????????????????

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Listing 20: ????????

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Listing 21: ????????

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[Redacted]

????????80?Listen?????????????
curl??????????????

[Redacted]

Listing 22: ????????

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[Redacted]

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404??
?directive?default????????????????

nginx.org : root directive
nginx.org : index directive
nginx.org : listen directive

?????????server directive?????????????????default????????????????????????????
??



html?????????????
?????????????????????????????????curl????????????????



Listing 23: ????????

1

???????????????????? default????????????????????

2.3.5 5. listen directive (10min)

listen directive????????????NGINX??????IP????????????????????????????
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Listing 24: ????????

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[REDACTED]
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?????????????????????Listen????????????????????
????????????????????????????????????????????????????????????
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[REDACTED]
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Listing 25: ????????

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1 [REDACTED]
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NGINX?Listen????????????????
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[REDACTED]
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Listing 26: ????????

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1 [REDACTED]
2 [REDACTED]
3 [REDACTED]
4 [REDACTED]
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↳ nginx ,pid 5547,fd 6), (nginx ,pid 5548,fd 6), (nginx ,pid 5549,fd 6) (continues on next page)

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Listing 27: ?????????

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Listing 28: ?????????

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Listing 29: ?????????

1 [Redacted]
2 [Redacted]

Listing 30: ?????????

1 [Redacted]
2 [Redacted]

socket?????NGINX????????????????

[Redacted]

2.3.6 6. server_name directive (10min)

server_name directive?????????????????FQDN?????????????????

????????????????????

[Redacted]

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[Redacted]

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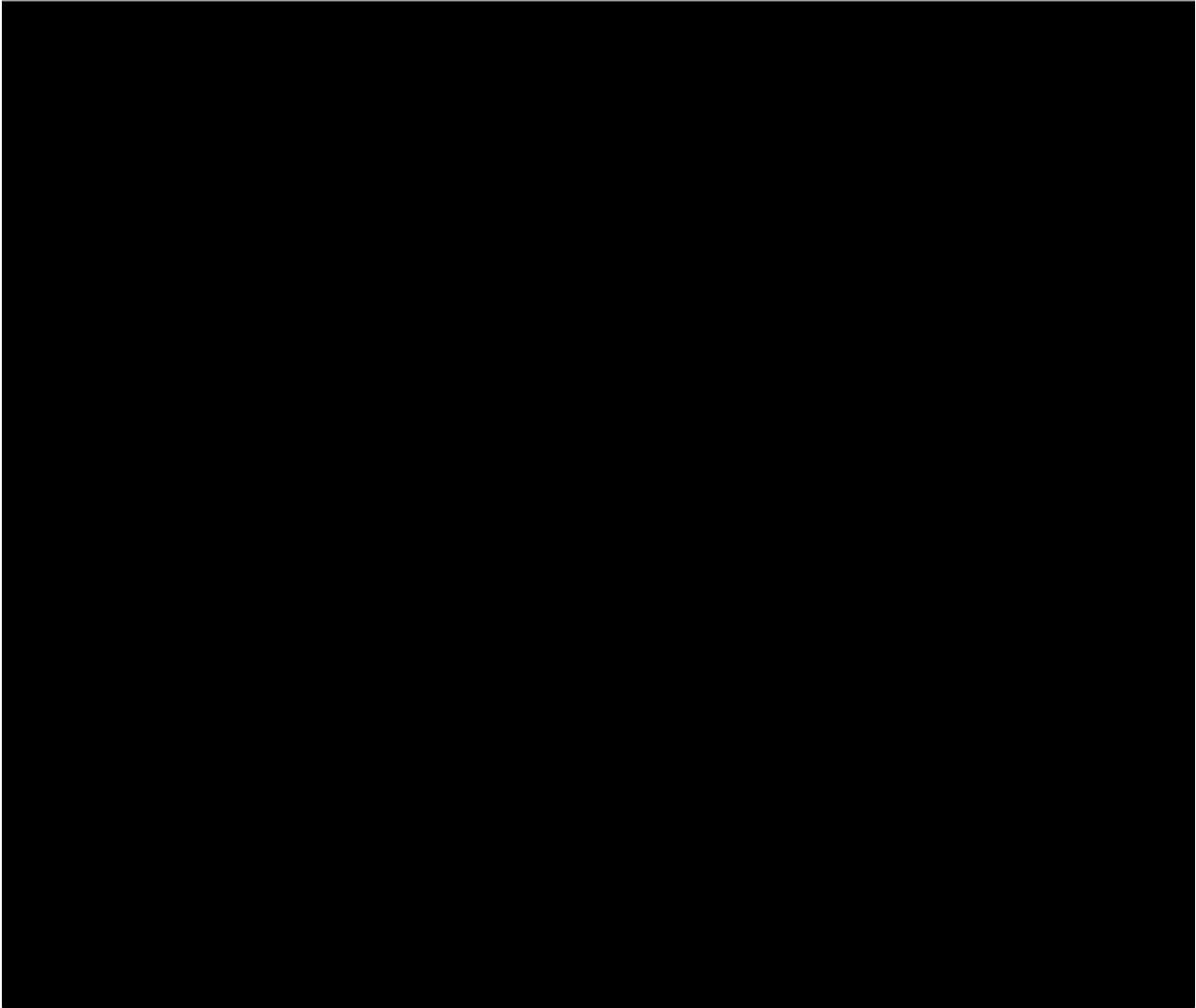
Listing 31: ?????????

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2 [Redacted]

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server_name??????????

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Listing 32: ??????????



Wild Card????????????????????



Listing 33: ??????????



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Listing 34: ??????????



Listing 35: ??????????

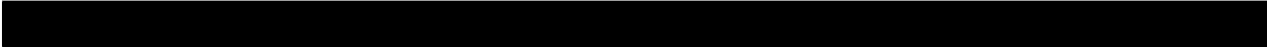


2.3.7 7. location directive (10min)

????????????????????????????



????????????????????



Listing 36: ????????

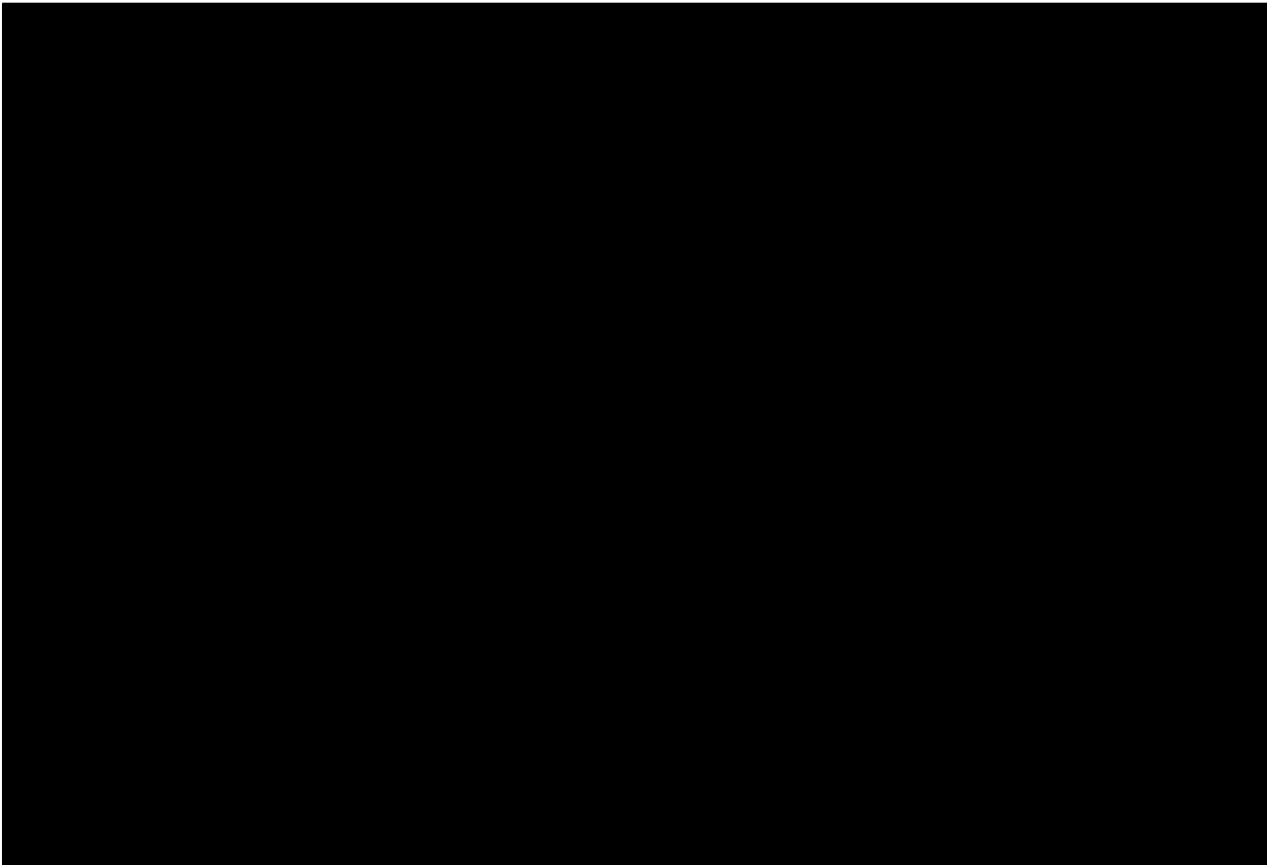
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location????????????????

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Listing 37: ????????



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Listing 38: ????????



2.3.8 8. Proxy (5min)

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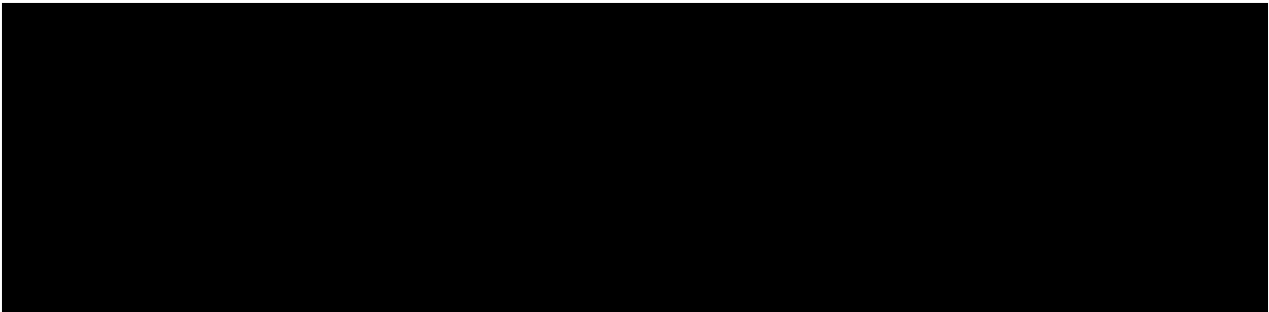


????????????????



Listing 39: ????????

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10



????????

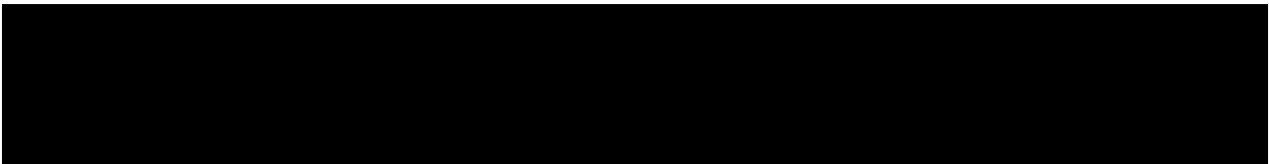


???????????????????? ???? ?????????????????????



Listing 40: ????????

1
2
3
4
5



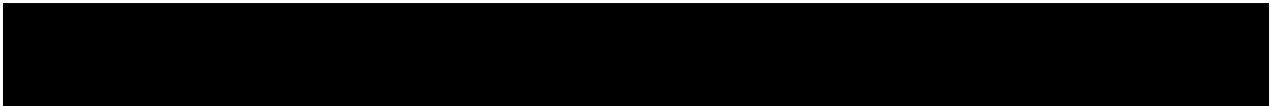
Listing 41: ????????

1
2
3
4
5



2.3.9 9. Load Balancing (5min)

????????????????????

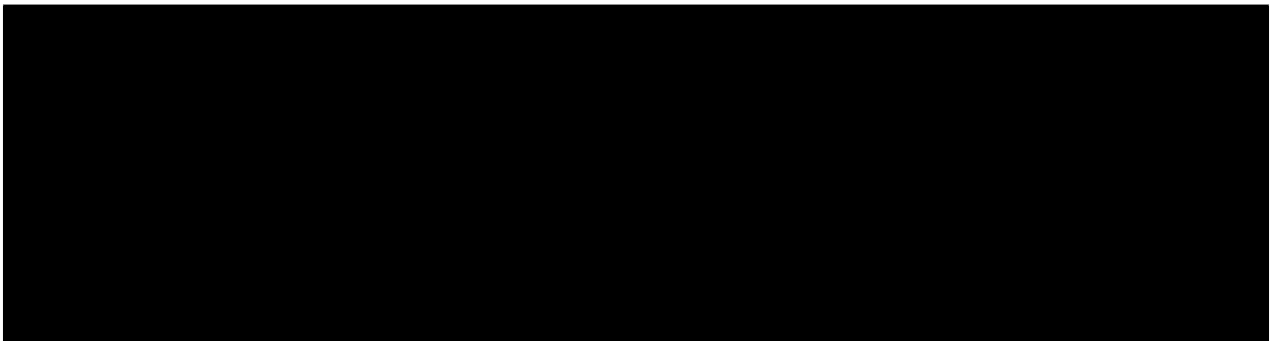


????????????????

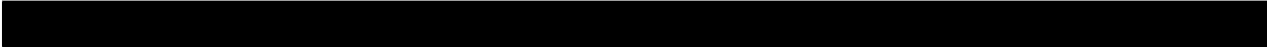


Listing 42: ????????

1
2
3
4
5
6
7
8
9
10
11

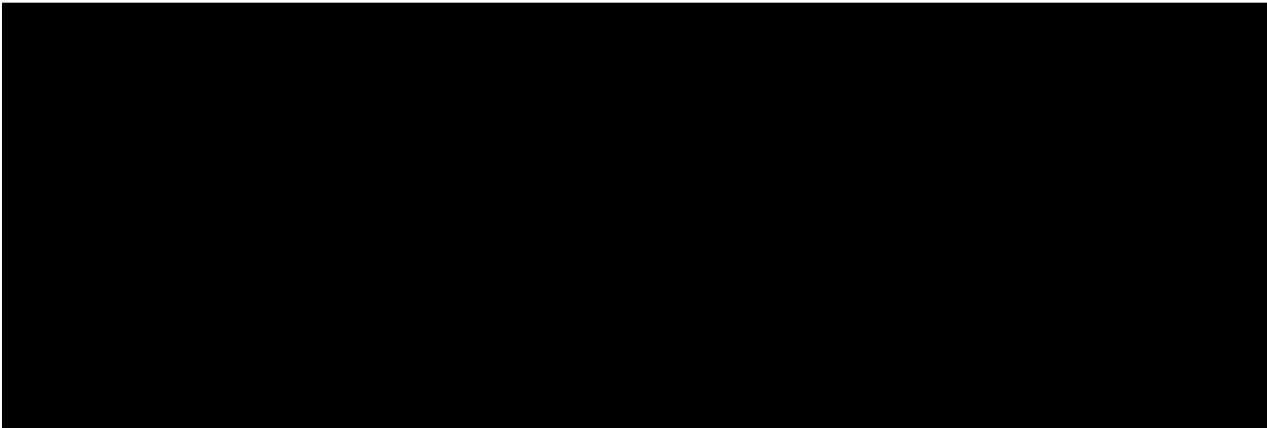


Note: API?API????Dashboard???? NGINX Plus ?????????? NGINX OSS ????????????

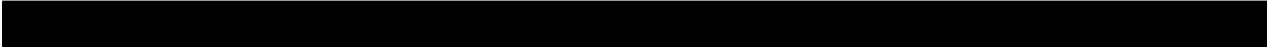


Listing 43: ?????????

1
2
3
4
5
6
7
8
9
10
11
12
13
14



?????????



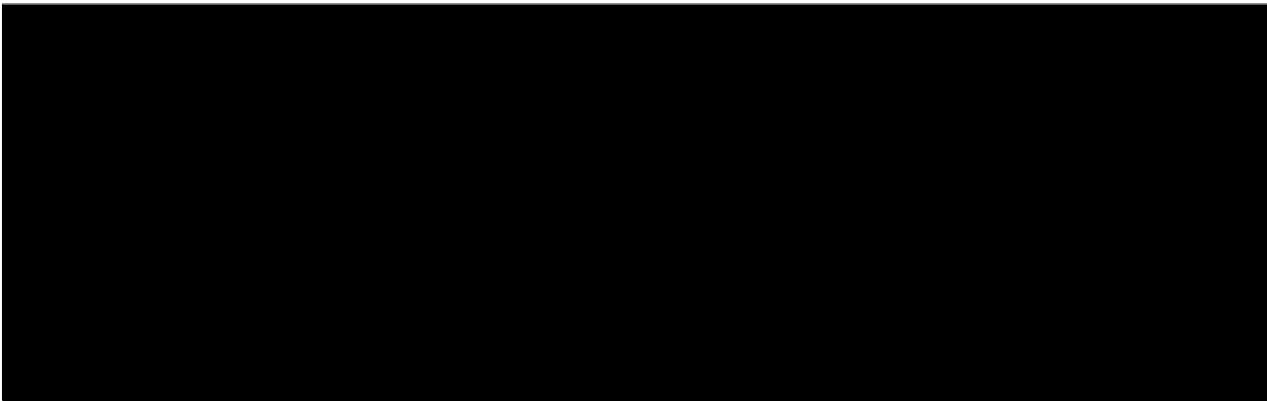
????????????????????NGINX Plus Dashboard???????? "ubuntu01"???????????? "PLUS DASH-
BOARD"???????????????????????????????????? http://10.1.1.7:8888/dashboard.html ??????????

??



Listing 44: ?????????

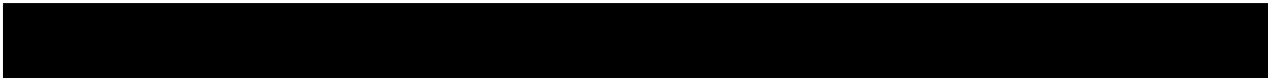
1
2
3
4
5
6
7
8
9
10
11
12
13



Dashboard?????????weight????????????????????????????????

2.3.10 10. ?????????? (5min)

????????????????

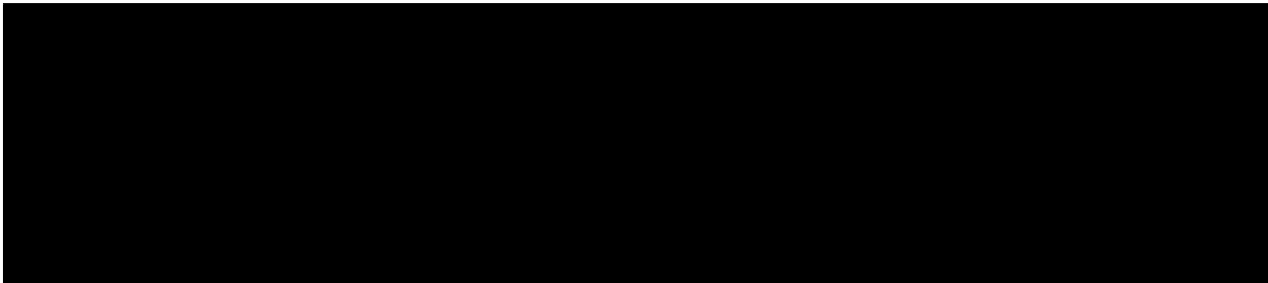


????????????????



Listing 45: ??????????

1
2
3
4
5
6
7
8
9



?????????



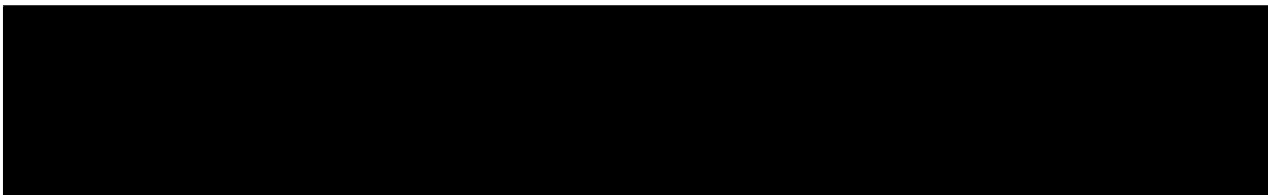
????????????????

HTTP?????????



Listing 46: ??????????

1
2
3
4
5
6



(continues on next page)

(continued from previous page)

7
8
9
10
11
12
13
14
15
16
17
18

HTTPS?????????

Listing 47: ??????????

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37

(continues on next page)

(continued from previous page)

38
39
40





3.1 1. NGINX OSS???????

????????????????? NGINX OSS ????????????

??? Installing a Prebuilt Ubuntu Package from the Official NGINX Repository

- NGINX OSS????????????????3????????????????? NGINX?????Prebuild Binary ?????????? ????????????????????

????	????
NGINX Prebuild	NGINX
Linux Distri Prebuild	Linux, OSS???????
Source Code ?? Build	OSS???????

- NGINX OSS?2?????????????????
 - Mainline - ???????????Fix???
 - Stable - ?????????????????????????????????????Critical???Fix????????????????????????????????????

3.1.1 1. ????????

????????????????????????????????



NGINX OSS????????????????????????????????



????????????????????????

mainline ?????????????????????????????????



stable ?????????????????????????????????



apt????????????????????



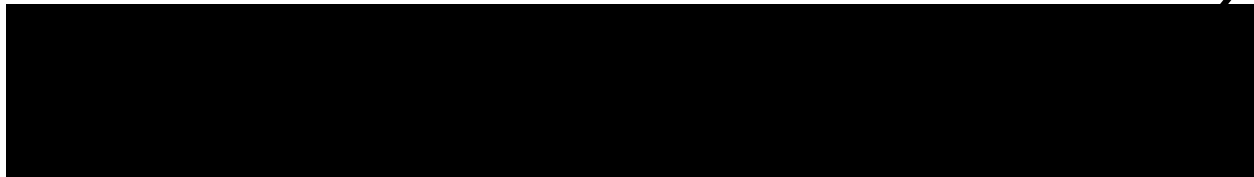
????????????????



3.1.2 3. NGINX ????????????????



NGINX Plus ? NGINX OSS ??????Directive???????????????? ????????? NGINX???



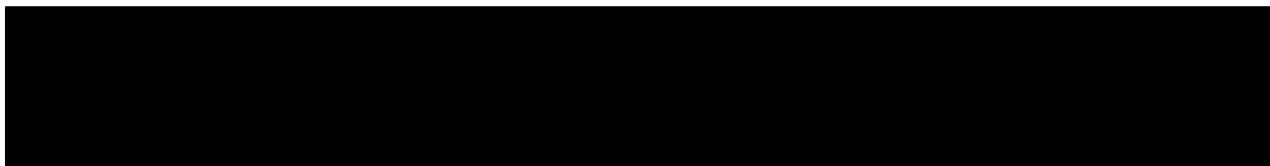
4.1 Tips1. NGINX Plus ? Offline Install

NGINX Plus Subscription?????????MyF5???OS?????NGINX Plus??Module????????????????????
?????????Offline?Install???????????

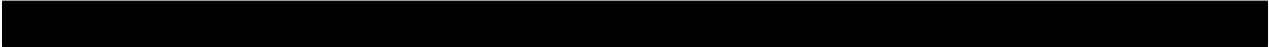
MyF5????????????????????? *Tips2. Unprivilege(???)?????Install ?* NGINX Plus Binary??? ????????????

4.1.1 1. Offline Install

?????????????????



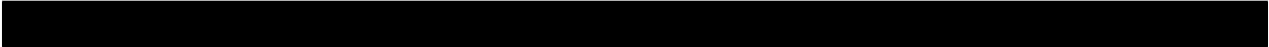
?????????????????



Listing 1: ????????



NGINX ??????



????????



Listing 2: ????????

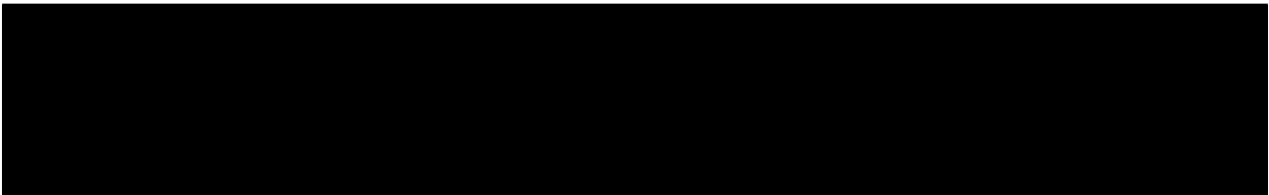


4.2 Tips2. Unprivilege(???)????Install

???????? NGINX Plus Unprivileged Installation ?????????? ???
????????????????(??fetch / list)?? wget ???

4.2.1 1. Install Script???

Unprivilege Install??????Script??????



????????



4.2.2 2. NGINX Plus Binary???

????????????????????????? ???
??

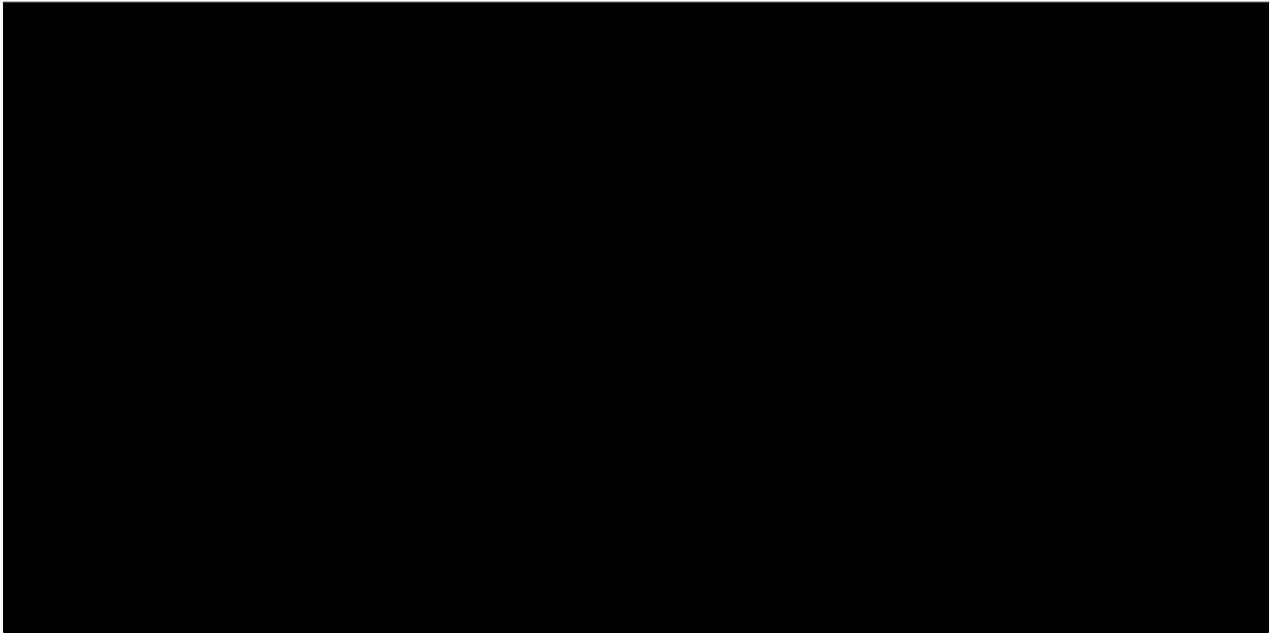


NGINX Plus Binary ???



Listing 3: ????????

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21



4.2.3 3. NGINX Plus ? Install

NGINX????????????????????



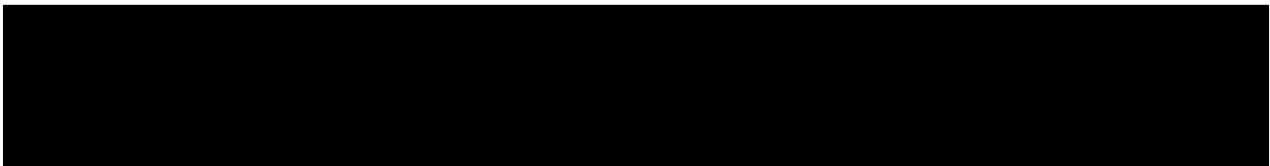
????????????????????



?????????????Prompt????? y ??????????

Listing 4: ????????

1
2
3
4



?????????????



Listing 5: ????????

1
[Redacted]

```
????????????????????????????????NGINX???????
```

[Redacted]

```
????????????????????????????WellknownPort????????????????????????
```

[Redacted]

Listing 6: ????????

1 [Redacted]

4.3 Tips3. NGINX Plus QUIC Package ????????

4.3.1 R29 Quick Package ????????

NGINX Plus R29 ???????????????? NGINX Plus QUIC Package??????????????

NGINX Plus QUIC????????????????????????NGINX Plus ?????? NGINX Plus QUIC????????????????
QUIC??????NGINX Plus??????NGINX Plus QUIC????????????NGINX AppProtect?NGINX AppProtect DoS
????????????????????????

1. NGINX Plus????????? (15min) ??????????????????? 1. NGINX License??????????? ? 2. ?????????
????????????????????

NGINX Plus QUIC????????????????????????????????

????????????????????????????

[Redacted]

NGINX Plus QUIC????????????????????

[Redacted]

????????????????????????

[Redacted]

Listing 7: ????????

1

4.3.2 ?????

????????????????????
??????????????

????????????????????

??????????????

??????????????

???????????

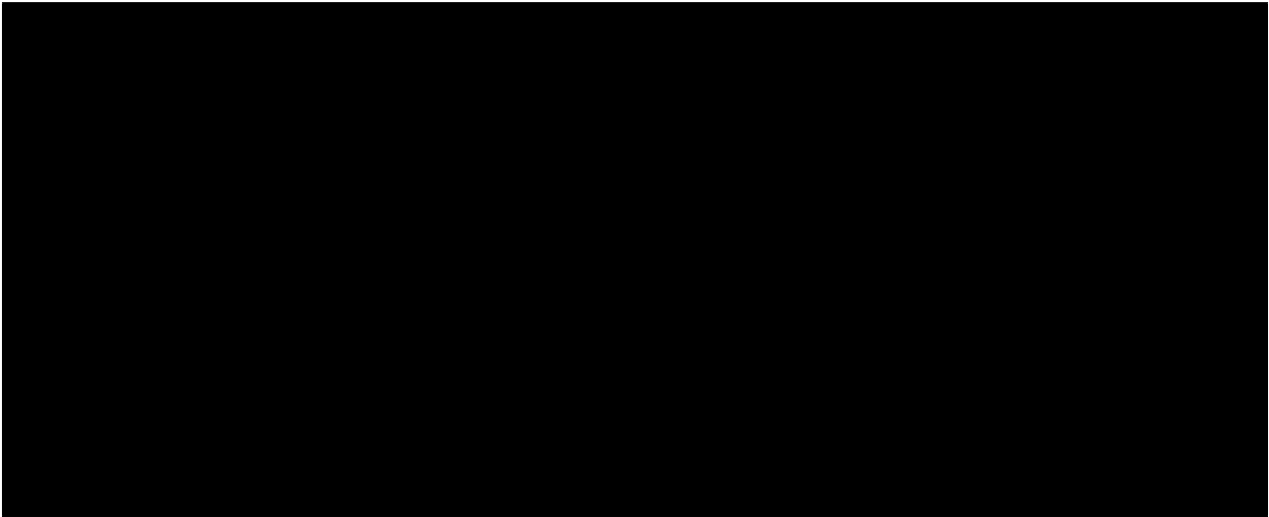


4.3.3 ????

http3????curl????????????? Docker Image????????? Dockerfile???????



????????????????????



????????????????



????????????????curl???????



