

HARD

 : HARD.

PID-
(MongoDB)
(Oracle)



```

•   Train-Case: , .
•       • , match. , .
•   snake_case: .
•   :
•       • , ?
•       • .
•   ,
•   (YAML-) , —
•   , yml. *.yml,

```

HARD , .

```
*.yaml, /etc/hydra/hard/ (/etc/hydra-testing/hard-testing/ ) . , :
```

- `hard.yml` — ;
- `batch.yml` — ;
- `plugins:`
 - `base.yml` — `base`;
 - `proxy.yml` — `proxy`.

. /opt/hydra/hard/conf/, — /opt/hydra/hard-testing/conf/. () (), .

$$\vdots$$

```

...
10.02.2017 12:00:59. 90 136807/Master      MainThread INFO      All workers have been stopped
10.02.2017 12:00:59. 90 136807/Master      MainThread INFO      Stopped
11.02.2017 13:13:01.171 23117/MainThread      INFO
=====

11.02.2017 13:13:01.177 23117/MainThread      INFO
HARD (4.2.9.1). Configuration loaded:
  "sessions_loader":
    "bulk_size_limit": 50000,
    "plugins":
      "default":
        "sessions":
"cache_cleaner":
  "expire_period":
    "accounting": 1440,
    "user_equip": 1440,
    "netservs": 1440
"batch":
  "pid_path": "/var/run/hydra/hard/batch.pid",
  "mongo_pool": "main"
"enabled_plugins": [
  "base/radius-ipoe",
  "proxy/dhcp",
  "base/dhcp-ont-mng",
  "base/dhcp-voip",
  "base/dhcp-iptv",
  "base/dhcp-internet",
  "base/dhcp-unknown"
],
"log":
  "common":
...
  "plugins":
...
    "proxy":
      "main":
      "dhcp":
        "routes":
          "base/dhcp-ont-mng": "$request.RAD_REQUEST.try(\"DHCP-Relay-Circuit-Id\", \"0x00\").unhex().like?(\
^xpon 1010 GPON-H .+$\")",
          "base/dhcp-iptv": "$request.RAD_REQUEST.try(\"DHCP-Relay-Circuit-Id\", \"0x00\").unhex().like?(\
^xpon 1022 GPON-H .+$\")",
          "base/dhcp-voip": "$request.RAD_REQUEST.try(\"DHCP-Relay-Circuit-Id\", \"0x00\").unhex().like?(\
^xpon 1011 GPON-H .+$\")",
          "base/dhcp-internet": "$request.RAD_REQUEST.try(\"DHCP-Relay-Circuit-Id\", \"0x00\").unhex().like?(\
^xpon 11[0-9]2 GPON-H .+$\")"
          "default": "base/dhcp-unknown",
          "call_stack": []
11.02.2017 13:13:59.185 23123/Master      MainThread INFO      Running
11.02.2017 13:13:59.186 23123/Master      MainThread DEBUG     Handling signals
11.02.2017 13:13:59.188 23123/Master      MainThread DEBUG     Adding Worker#1, lifetime: 0.001 seconds to
process pool
...

```

HARD /etc/hydra/hard/hard.yml (/etc/hydra-testing/hard-testing/hard.yml).

enabled_plugins.

, . <plugin_name>/<plugin_instance_name>, <plugin_name> — , <plugin_instance_name> — .

: base — proxy
<pre>enabled_plugins: - 'proxy/dhcp' - 'base/dhcp-o82' - 'base/dhcp-ip-private' - 'base/dhcp-ip-public'</pre>

, , , .

log common () log batch ().

level	: <ul style="list-style-type: none"> • error — : , . • info — : , , , . . . • debug — , info- , ,
path	-
rotate size	-
rotate count	-.

<pre>... log: common: level: 'debug' path: '/var/log/hydra/hard/hard.log' rotate: size: 20480 count: 250 batch: level: 'info' path: '/var/log/hydra/hard/batch.log' rotate: size: 10240 count: 50 ... </pre>

PID-

pid_path.

, PID .

PID-
pid_path: '/var/run/hydra-testing/hard-testing/hard.pid'

filters.

. , agent.basic_auth, HTTP-. , , rlm_perl FreeRADIUS — .

<code>filters agent.basic_auth main login</code>	
<code>filters agent.basic_auth main password</code>	

```
HTTP-

...
filters:
  agent.basic_auth:
    main:
      login: 'FreeRADIUS'
      password: 'q0IkVhQf10ZKUgKYAyoE'
...
```

server.

FreeRADIUS -: , rlm_perl FreeRADIUS — . , .


address	IP- ,
port	TCP-,
workers	Worker-, FreeRADIUS .
abort_attempts	SIGTERM SIGKILL.
abort_delay	SIGTERM .
call_stack	, . , agent.basic_auth/main, agent.profiler/main agent.exception_handler/main.

```
server:
  address: '127.0.0.1'
  port: 11080
  workers: 3
```

(MongoDB)

connection_pools mongo <spec_name>.

<spec_name> . , MongoDB Replica Set RADIUS-, — MongoDB .

 HARD 4 MongoDB 3. deb- **hydra-mongodb3** (deb.hydra-billing.com).

host	IP- DNS-, mongod.
port	TCP-, mongod.
name	.
user	. .
password	.
replica_set name	(MongoDB Replica Set)

replica_set uris	(MongoDB Replica Set) <host>:<port>, <host> — IP- DNS-, <port> — TCP.
indexes	. : .



: .

MongoDB

```
systemLog:
  destination: 'file'
  path: '/var/log/hydra/mongodb3/mongod3.log'
  logAppend: true
  logRotate: 'reopen'

processManagement:
  fork: false

net:
  bindIp: '127.0.0.1'
  port: 27027
  http:
    enabled: false

security:
  authorization: 'enabled'

storage:
  dbPath: '/var/lib/hydra/mongodb3'
  directoryPerDB: true
  journal:
    enabled: true
  engine: 'wiredTiger'
  wiredTiger:
    engineConfig:
      cacheSizeGB: 1
```

MongoDB: hard

```
user@server:~$ mongo3 admin          # «»      ( MongoDB Localhost Exception)
MongoDB shell version: 3.0.4
connecting to: 127.0.0.1:27027/admin

> //      admin,
> db.createUser(
  {
    user: 'admin',
    pwd: 'r08gS19tZfrs51ntZEC4',
    roles: [
      {
        role: 'root',
        db: 'admin'
      }
    ]
  }
);
Successfully added user: {
  "user" : "admin",
  "roles" : [
    {
      "role" : "root",
      "db" : "admin"
    }
  ]
}

> //
> db.auth('admin', 'r08gS19tZfrs51ntZEC4');
1

> //      hard_cache,      connection_pools mongo <spec_name> name
> use hard_cache;
switched to db hard_cache

> //      hard,
> db.createUser(
  {
    user: 'hard',                      // - connection_pools mongo <spec_name> user
    pwd: '56kiEhlN61GC3ga17SgD',      // - connection_pools mongo <spec_name> password
    roles: [
      {
        role: 'readWrite',
        db: 'hard_cache'
      }
    ]
  }
);
Successfully added user: {
  "user" : "hard",
  "roles" : [
    {
      "role" : "readWrite",
      "db" : "hard_cache"
    }
  ]
}
```

```

connection_pools:
  mongo:
    #      RADIUS-
    main:
      name: 'hard_cache'
      user: 'hard'
      password: '56kiEh1N61GC3ga17SgD'
      replica_set:
        name: 'hard_rs'
        uris:
          - '192.168.125.11:27027'
          - '192.168.125.12:27027'
          - '192.168.125.13:27027'

    #
    local_instance:
      name: 'hard_cache'
      user: 'hard'
      password: '56kiEh1N61GC3ga17SgD'
      host: 'localhost'
      port: 27027

```

(Oracle)

connection_pools database main.

— .

name	(net service name) . tnsnames.ora .						
user	(AIS_RADIUS).						
password	.						
hydra user	<div><div>RADIUS-</div><div>, , :</div><div><table><tr><td></td><td></td><td></td></tr><tr><td>RADIUS-</td><td></td><td>RADIUS-</td></tr></table></div></div>				RADIUS-		RADIUS-
RADIUS-		RADIUS-					
hydra password	RADIUS-						

```

connection_pools:
  database:
    main:
      name: 'hydra'
      user: 'AIS_RADIUS'
      password: 'T7412Ph5Flzj1ApXY2SG'
    hydra:
      user: 'hard'
      password: 'aQ4kW3GP104LDG5WFUCI'

```

syncer.

--	--

mongo_pool	.
stomp host	IP- DNS-, ActiveMQ STOMP.
stomp port	TCP-, ActiveMQ .
stomp login	ActiveMQ .
stomp password	ActiveMQ .
queues profiles	ActiveMQ - .
queues binds	ActiveMQ - .

```
syncer:
  stomp:
    host: '192.168.123.15'
    port: 61613
    login: 'hydra'
    password: 'cq48L96pV41C514WtiW9'
  queues:
    profiles: 'hydra_profiles'
    binds: 'hydra_equipment_binds'
```


hooks.

- () .

 ..

: /etc/hydra/hard/batch.yml /etc/hydra-testing/hard-testing/batch.yml — .

batch mongo_pool	.
batch pid_path	, PID .
sessions_loader bulk_size_limit	. .

 [base](#) .