

v1.27

1.27


Eltex SC - OS Ubuntu 20.

- — 1;
- — i5 3,0 ;
- — 8 ;
- — 1000 ;
- (/) — 2000 IOPS.


 .

Eltex SC


Eltex SC 1.27 Ubuntu 20.04. Eltex SC (1.26) : [Eltex SC](#).

 1.19.4 deb- .

 1.25 eltex-notification-gw(ngw) **notification.properties.j2.** **vars/default.yml**

 Eltex SC , , !

Ansible . Ansible .


 Ansible — , Python . , Eltex SC.

:

1. Ansible Ubuntu 20.04.

Ansible

```
apt update
apt install --install-recommends linux-generic-hwe-20.04-edge
apt install software-properties-common
add-apt-repository --yes --update ppa:ansible/ansible
apt install ansible
```

 Ansible .

2. (v2.9):

Ansible
ansible --version

3. Ansible .

```
_:
ansible-galaxy collection install community.general
ansible-galaxy collection install community.crypto
ansible-galaxy collection install community.docker
```

4. .

tar.gz, /etc root.

```
_:
tar -C /etc -xvf ansible-iot-1.27.tar.gz
```

(/) Ansible /etc/ansible-iot-1.27

5. /etc/ansible-iot-1.27/inventory

, nano. root ansible_sudo_pass:

 root rootpasswd

```
_:
inventory

[IoT]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd
[elk]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd
[monitoring]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd
```

6. Eltex SC.

/etc/ansible-iot-1.27/vars/default.yml

, nano. IP- server_name:

vars/default.yml

```
---
# .
iot:
# (IP-) , IoT.
# 'localhost', .
# !!! 'serverName' (IP-), .
# 'localhost', 'localhost'!
serverName: "my.test.server"
# , .
installDir: /storage/iot

# (Elasticsearch + Logstash + Kibana).
elk:
# appender, logstash.
# , ELK ;
# .
enable: false
# (IP-) , ELK.
# 'iot.serverName', ( ).
# [iot] [monitoring] .
serverName: "{{ iot.serverName }}"
# .
installDir: /storage/elk

# (Prometheus + Grafana).
monitoring:
# (IP-) , (Prometheus + Grafana).
# 'iot.serverName', ( ).
# [iot] [elk] .
serverName: "{{ iot.serverName }}"
# .
installDir: /storage/monitoring
```

vars/default.yml

```
# MongoDB.
mongodb:
  # MongoDB. , , `4`.
  version: 5
  external:
    # true, MongoDB.
    # !!! MongoDB , 'addr' 'port'.
    enable: false
    # MongoDB.
    addr: "{{ iot.serverName }}"
    # MongoDB.
    port: 27017

# WEB.
web:
  # (IP-) , WEB.
  # 'iot.serverName', ( ).
  serverName: "{{ iot.serverName }}"
  # HTTP, WEB.
  httpPort: 80
  # HTTPS, WEB.
  httpsPort: 443
  # HTTP HTTPS
  redirectHttpToHttps: false
  certbot:
    # certbot Let's Encrypt.
    enable: false
    # Email . Let's Encrypt.
    email: test@email.com

# email (NGW).
mail:
  smtp:
    submitter: test@email.com
    password: "password"
    senderPrefix: " Eltex-SC"
    auth: "true"
    host: email.com
    port: 587

# IoT core.
core:
  # IoT Core.
  logLevel: INFO

# zway-.
ctlGate:
  port: 8070
  tcpPort: 8069
  sslPort: 8072
```

vars/default.yml

```
# API .
api:
  port: 8071
  sslPort: 8073

# : easy, medium, hard
captchaLevel: "easy"

server:
  # HTTPS WEB ('true' , ,
  # 'web.httpsPort'). 'false', HTTP , 'web.httpPort'.
  useHttpsForUi: true
  # HTTPS (, ).
  useHttpsForApi: false
  # HTTPS .
  useHttpsForCameraLinks: true
  # 'web.serverName' 'iot.serverName' 'web.httpPort'/'web.httpsPort'
  # 'core.api.port'/'core.api.sslPort' API.
  useUiProxyForApi: false

# .
selfRegistration:
  allow: true
  allowDemo: true
  allowSocialNetworks: false

#
video:
  # Flussonic.
  flussonic:
    url: ""
    apiKey: ""
    operatorId: ""
    adminLogin: ""
  # eltex
  eltex_server:
    url: ""
    # true, , flussonic flussonic.url
    # eltex. 1.28 .
    hls_player: false

# ( ).
clientRegistrations:
  google:
    clientId: "GoogleClientIdChangeMe"
    clientSecret: "GoogleClientSecretChangeMe"
```

vars/default.yml

```
#      ().
yandexSkill:
  # Basic Authentication.
  clientId: "YandexClientIdChangeMe"
  password: "PasswordChangeMe"
  # Id , .
  skillId: ""
  # OAuth-, .
  oauthToken: ""

#      .
sberSkill:
  # Basic Authentication.
  clientId: "SberClientIdChangeMe"
  password: "PasswordChangeMe"
  # Bearer-, .
  bearerToken: ""

#      Mail.ru . /.
marusyaSkill:
  # Basic Authentication.
  clientId: "MarusyaClientIdChangeMe"
  password: "PasswordChangeMe"
  # App ID, VK .
  appId: "MarusyaAppIdChangeMe"
  # OAuth-, .
  oauthToken: ""
```



, , e-mail. :

mail:

smtp:

submitter — e-mail;

password — e-mail;

auth — smtp ();

senderPrefix — ;

host — smtp-;

port — smtp- .

vars/service_parameters.yml :

/vars/service_parameters.yml

```
---
# .
release: 1.27

# docker registry, docker- .
registry: hub.eltex-co.ru

# ( restart_*.yml).
# , .
services:

# . ""
# . IoT ansible,
# .
withDistroPreparingStep: true

# , ( ).
containerNameSuffix: ""

# , docker ( docker).
networkNameSuffix: ""

# . :
# warnThreshold > criticalThreshold > 0, .
diskUsage:
# ( %), WARN
# ( WARN ERROR).
# criticalThreshold.
warnThreshold: 20
# ( %), ERROR
# ( ERROR). .
criticalThreshold: 10
```

/vars/service_parameters.yml

```
# IoT ( docker-compose), .
# 'enable' - docker-compose.yml.
# 'port.map' - .
# 'port.export' - .
# 'db.name' - , ( ).
iotServices:
  db:
    port:
      map: 27017
      export: false
  broker:
    enable: true
    external:
      port:
        map: 8883
    internal:
      port:
        map: 8083
        export: false
  db:
    name: iot-broker
olapService:
  enable: true
  port:
    map: 8023
    export: false
  db:
    name: iotcore
    port:
      map: 8123
      export: false
  ngw:
    port:
      map: 8040
      export: false
    db:
      name: notification-gw
      user: javauser
      password: javapassword
      port:
        map: 3306
        export: false
  captcha:
    enable: true
    port:
      map: 8088
      export: false
    caseSensitive: true
    allowedSizes:
      - "312x45"
      - "270x40"
    instance: "captcha:8088"
    proportion: 100
```


/vars/service_parameters.yml

```
zscaptcha:
  enable: false
  port:
    map: 8089
    export: false
  caseSensitive: true
  instance: "zs-captcha:8089"
  proportion: 0
core:
  # , core.
  enable: true
web:
  # WEB, web.
  enable: true
zwayproxy:
  enable: false
  port:
    map: 8070
    export: true
sslPort:
  map: 8072
  export: true
rabbit:
  port:
    map: 5672
    export: false
  queue:
    # .
    platform: platform
  exchange:
    # -.
    proxy: zway-proxy-topic-exchange
  #
platformConsumers:
  # maxCount.
  count: 1
  # .
  maxCount: 1
  # zwayProxy service
proxyConsumers:
  # . maxCount.
  count: 1
  # .
  maxCount: 1
```

/vars/service_parameters.yml

```
# ELK ( docker-compose), .
# 'port.map' - .
# 'port.export' - .
elkServices:
  elasticsearch:
    rest:
      port:
        map: 9200
    nodes:
      port:
        map: 9300
  logstash:
    port:
      map: 5001
    api:
      port:
        map: 9600
  kibana:
    port:
      map: 5601

# ( docker-compose), .
# 'port.map' - .
# 'port.export' - .
monitoringServices:
  prometheus:
    port:
      map: 9090
  grafana:
    port:
      map: 3000
  nginxExporter:
    enable: true
    port:
      map: 9113


coreInternal:
# .
testdata:
  enable: false
# swagger ( API ).
swagger:
  enable: false
# MQTT Broker.
mqttbroker:
  enable: true
# OlapService.
olapservice:
  enable: true
```

```
/vars/service_parameters.yml

# MongoDB, .
core:
  db:
    name: iot-core
fs:
  db:
    name: iot-fs
licenses:
  db:
    name: iot-licenses
events:
  db:
    name: iot-events
mjollnir:
  # URL Mjollnir.
  url: "http://smart.eltex-co.ru:8078/api/v1"
```

7. :

```
cd /etc/ansible-iot-1.27
ansible-playbook install_iot.yml
```

 Eltex SC c MongoDB, mongodb.org APT (, /etc/apt/sources.list.d/mongodb-org-4.4.list).

8. :

```
docker ps
```

docker ps						
CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
25c08d17a4ae	hub.eltex-co.ru/iot-clickhouse-backup:1.27	/entrypoint.sh /ent...	2 minutes ago	Up 2 minutes		iot-olap-service-db-backup
36c21b863cc9	hub.eltex-co.ru/iot-double-web:1.27	/docker-entrypoint...	2 minutes ago	Up 2 minutes	0.0.0.0:80->80/tcp, :::80->80/tcp, 0.0.0.0:443->443/tcp, :::443->443/tcp	iot-double-web
01fe2697e5ff	hub.eltex-co.ru/iot-core:1.27	java -Dspring.profi...	2 minutes ago	Up 2 minutes	.0.0.0:8069-8073->8069-8073/tcp, :::8069-8073->8069-8073/tcp	iot-core
07d1f93831bd	hub.eltex-co.ru/iot-mqttbroker-mongo:1.27	java -cp @/app /jib-...	2 minutes ago	Up 2 minutes	0.0.0.0:8883->8883/tcp, :::8883->8883/tcp	iot-mqtt-broker
d1c736dc27d0	hub.eltex-co.ru/eltex-ngw:1.27-602	/usr/sbin /ngw_start...	2 minutes ago	Up 2 minutes		iot-ngw-sc
228d41c96cba	hub.eltex-co.ru/iot-olap-service:1.27	java -cp @/app /jib-...	2 minutes ago	Up 2 minutes		iot-olap-service
e8e2899f2c8d	hub.eltex-co.ru/iot-captcha:1.27	java -jar LibreCapt...	2 minutes ago	Up 2 minutes	8888/tcp	iot-captcha
57c02941cc4f	hub.eltex-co.ru/iot-mongo5:1.27	/entrypoint.sh	2 minutes ago	Up 2 minutes	0.0.0.0:27017->27017/tcp, :::27017->27017/tcp	iot-mongo
7c3d8d5c4137	hub.eltex-co.ru/iot-mysql:1.27	docker-entrypoint.s...	2 minutes ago	Up 2 minutes	3306/tcp, 33060/tcp	iot-iot-mysql
9009dd4cd675	hub.eltex-co.ru/iot-olap-service:1.27	java -cp @/app /jib-...	2 minutes ago	Up 2 minutes	0.0.0.0:8023->8023/tcp, :::8023->8023/tcp	iot-olap-service

6c61b34c3a41	hub.eltex-co.ru/iot-clickhouse-server:1.27	/entrypoint.sh	2 minutes ago	Up 2 minutes	9000/tcp, 0.0.0.0:8123->8123/tcp, :::8123->8123/tcp, 9009/tcp	iot-olap-service-db
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: http://[Eltex SC]

server_name /etc/ansible-iot-1.27/vars/default.yml

API .

9. .



, .

Eltex SC MongoDB

MongoDB, .. Eltex SC /mongodb:



[mongodb.org](https://www.mongodb.org) .

deb- (,).

1. MongoDB (4.4):

```
sudo apt-get update
sudo apt-get upgrade
sudo apt-get install -y software-properties-common gnupg build-essential net-tools dkms
wget https://www.mongodb.org/static/pgp/server-4.4.asc
sudo apt-key add server-4.4.asc
echo "deb [ arch=amd64,arm64 ] https://repo.mongodb.org/apt/ubuntu focal/mongodb-org/4.4 multiverse" | sudo tee
/etc/apt/sources.list.d/mongodb-org-4.4.list
sudo apt-get update
sudo apt-get install -y mongodb-org
sudo service mongod start
sudo service mongod status
```

2. /etc/mongod.conf net :

```
port: 27017
bindIp: 0.0.0.0
```

mongod:

```
sudo service mongod restart
sudo service mongod status
```

3. Ansible :

```

sudo add-apt-repository --yes --update ppa:ansible/ansible
sudo apt install ansible
sudo ansible-galaxy collection install community.general
sudo ansible-galaxy collection install community.crypto
sudo ansible-galaxy collection install community.docker

```

4. :

```
tar -C /etc -xvf ansible-iot-1.27.tar.gz
```

. (/) Ansible **/etc/ansible-iot-1.27.**

5. **/etc/ansible-iot-1.27/inventory.**

, nano. root ansible_sudo_pass:



root rootpasswd

inventory

```

[iot]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd
[elk]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd
[monitoring]
localhost ansible_connection=local ansible_sudo_pass=rootpasswd

```

6. , . **/etc/ansible-iot-1.27/vars/default.yml /etc/ansible-iot-1.27/vars/service_parameters.yml.**

default.yml , nano. IP- **server_name.**

enable true, 'addr' 'port'.

vars/default.yml

```

mongodb:
# MongoDB. , , `4`
version: 5
external:
# true, MongoDB
# !!! MongoDB , 'addr' 'port'
enable: false
# MongoDB
addr: "{{ iot.serverName }}"
# MongoDB
port: 27017

```

8. :

```
cd /etc/ansible-iot-1.27
sudo ansible-playbook install_iot.yml
```



: http://[Eltex SC]

server_name /etc/ansible-iot-1.27/vars/default.yml

9. .



, .

:

```
ansible-playbook restart_iot.yml --extra-vars '{"services":["web", "core", "broker", "olapservice"]}'
```

, ("web", "core", "broker", "olapservice"). "services" --extra-vars, .
:

```
ansible-playbook stop_iot.yml --extra-vars '{"services":["web", "core", "broker", "olapservice"]}'
```

:

```
ansible-playbook update_iot.yml
```

:

```
ansible-playbook install_iot.yml
```

**/etc/ansible-iot-1.27/templates : /etc/ansible-iot-1.27/templates/iot/default-for-docker.yml.j2 - : /etc/ansible-iot-1.27/templates/iot/web
/base_config**

: /storage/iot/core/var/log/eltex-sc/server.log

. : server-YYYY-MM-DD.NN.log, YYYY-MM-DD — , NN — .



install_iot.yml:

ansible-playbook install_iot.yml

/etc/ansible-iot-1.27/vars/default.yml . , /etc/ansible-iot-1.27/vars/default.yml, , .

default-for-docker.yml.j2:

```
# : , , ,
testData:
  environment: {{ 'true' if coreInternal.testdata.enable else 'false' }}

fileStorage:
  path: "/var/lib/eltex-sc/files"

controllerGateTCP:
  port: {{ core.ctlGate.tcpPort }}

controllerGate:
  port: {{ core.ctlGate.port }}

controllerGateSecurity:
  port: {{ core.ctlGate.sslPort }}
  key: "/etc/ssl/private/eltex-sc-ctl-gate.key"
  crt: "/etc/ssl/certs/eltex-sc-ctl-gate.crt"

api:
  port: {{ core.api.port }}
  sslPort: {{ core.api.sslPort }}

ui:
  serverName: "{{ web.serverName }}"
{% if web.httpPort != 80 or web.httpsPort != 443 %}
  # UI , UI
  # . port/sslPort URL UI (WEB)
{% if web.httpPort != 80 %}
  port: {{ web.httpPort }}
{% endif %}
{% if web.httpsPort != 443 %}
  sslPort: {{ web.httpsPort }}
{% endif %}
{% endif %}
```

```

mqttBroker:
  enabled: {{ 'true' if coreInternal.mqttbroker.enable else 'false' }}
  # MQTT ,
  host: "broker"
  # MQTT ,      MQTT
  port: 8883
  #      REST API,
  apiPort: 8083
  # URL      MQTT , MQTT
  remoteAccessURL: "{{ iot.serverName }}:{{ iotServices.broker.external.port.map }}"
  #      "Offline" mqtt
  offlineTimeoutSec: 300

olapService:
  enabled: {{ 'true' if coreInternal.olapService.enable else 'false' }}
  host: "olapService"
  port: 8023

zwayProxy:
  enabled: {{ 'true' if iotServices.zwayProxy.enable else 'false' }}
  manager:
    replicaCheckPeriodSeconds: 5
    replicaDeadPeriodSeconds: 15
    connectAliveWaitPeriodSeconds: 15
  rabbit:
    queue:
      #      .
      platform: {{ iotServices.zwayProxy.rabbit.queue.platform }}
    exchange:
      #      -.
      proxy: {{ iotServices.zwayProxy.rabbit.exchange.proxy }}
    consumers:
      #      .      maxCount.
      count: {{ iotServices.zwayProxy.rabbit.platformConsumers.count }}
      #      .
      maxCount: {{ iotServices.zwayProxy.rabbit.platformConsumers.maxCount }}

captcha:
  #      (Libre CAPTCHA, Zero Storage Captcha)
  instances: {{ captcha_instances | join(', ') }}
  proportions: {{ captcha_proportions | join(', ') }}
  level: "{{ core.captchaLevel }}"

```



```

#      UI(WEB)  API
server:
#      ,
name: "{{{ iota.serverName }}}}"
#      https://      UI
useHttpsForUi: {{{ 'true' if core.server.useHttpsForUi else 'false' }}}
#      https://      API
useHttpsForApi: {{{ 'true' if core.server.useHttpsForApi else 'false' }}}
#      https://
useHttpsForCameraLinks: {{{ 'true' if core.server.useHttpsForCameraLinks else 'false' }}}
#      ui.serverName server.name ui.port/ui.sslPort api.port/api.sslPort
#      API
useUiProxyForApi: {{{ 'true' if core.server.useUiProxyForApi else 'false' }}}
oauth2:
#      access-      .      5
#      , authorization server      60      ,
#      . . . : accessTokenTimeToLive + 60
accessTokenTimeToLive: 3600
#      jetty
jetty:
#
connection-idle-timeout: 120000ms
max-http-form-post-size: 200000B
#
threads:
acceptors: -1
selectors: -1
#
idle-timeout: 120000ms
#
min: 32
#
max: 256
#
max-queue-capacity: 32768

selfRegistration:
allow: {{{ 'true' if core.selfRegistration.allow else 'false' }}}
allowDemo: {{{ 'true' if core.selfRegistration.allowDemo else 'false' }}}
allowSocialNetworks: {{{ 'true' if core.selfRegistration.allowSocialNetworks else 'false' }}}

electricMeterScheduler:
cron: "0 0/30 * * * ?"

electricMeterArchiveScheduler:
cron: "0 0 17 * * ?"

batch:
maxPoolSize: 2
corePoolSize: 1

```

```

services:
  ngw:
    host: "ngw-sc"
    port: 8040
  alarmService:
    enabled: false
  diskUsage:
    warnThreshold: {{ diskUsage.warnThreshold }}
    criticalThreshold: {{ diskUsage.criticalThreshold }}
  loginInfo:
    # loginInfo ,
    ttl: 180
    # ( )
    # loginInfo ( )
    activityTimeLimit: 180
  user:
    # ( )
    #
    allowedInactivePeriod: 180
  push:
    firebase:
      enabled: true
    apns:
      enabled: true

languageInterface:
  language: "ru"

# Hazelcast instance configuration -> Move it to separate microservice -> Use hz-client here
hazelcast:
  instanceName: "iot-core-hz-instance{{ containerNameSuffix }}"
  clusterName: "iot-core{{ containerNameSuffix }}"
  network:
    port: "5705"
# member: "127.0.0.1:5701"

mjollnir:
  sync-period: "0 0 23 1/1 * ?"
  login: "platform"
  password: "platform"
  url: "{{ coreInternal.mjollnir.url }}"

# iot-core
iot-core:
  host: "{{ mongodb_addr }}"
  port: {{ mongodb_port }}
  user: ""
  password: ""
  database: "{{ coreInternal.core.db.name }}"

```

```
#      iot-fs
file-storage:
  host: "{{ mongodb_addr }}"
  port: {{ mongodb_port }}
  user: ""
  password: ""
  database: "{{ coreInternal.fs.db.name }}"

#
license-storage:
  host: "{{ mongodb_addr }}"
  port: {{ mongodb_port }}
  user: ""
  password: ""
  database: "{{ coreInternal.licenses.db.name }}"

#      eventlog
eventlog:
  host: "{{ mongodb_addr }}"
  port: {{ mongodb_port }}
  user: ""
  password: ""
  database: "{{ coreInternal.events.db.name }}"

monitoring-system:
  countAttempt: 3
  delayAttempt: 0

spring:
  security:
    oauth2:
      client:
        registration:
          google:
            client-id: "{{ core.clientRegistrations.google.clientId }}"
            client-secret: "{{ core.clientRegistrations.google.clientSecret }}"
  kafka:
    enabled: false
    producer:
      bootstrap-servers: "localhost:9092"
      key-serializer: org.apache.kafka.common.serialization.StringSerializer
      value-serializer: org.springframework.kafka.support.serializer.JsonSerializer
  rabbitmq:
    host: zwayproxy-rabbitmq
    port: 5672
```

```

# ,      android.ApiKey .
video:
  flussonic:
    url: "{{ core.video.flussonic.url }}"
    apiKey: "{{ core.video.flussonic.apiKey }}"
    operator_id: "{{ core.video.flussonic.operatorId }}"
    admin_login: "{{ core.video.flussonic.adminLogin }}"
  ivideon:
    # ip ivideon ,
    ip_for_catch_event: ""
  eltex_server:
    url: "{{ core.video.eltex_server.url }}"
    hls_player: "{{ core.video.eltex_server.hls_player }}"

#      SSL
ssl:
  key: "/etc/ssl/private/eltex-sc-api.key"
  crt: "/etc/ssl/certs/eltex-sc-api.crt"

proxy:
  enabled: false
  host: ""
  port: 8050

billing:
  cron: "0 0 0 * * ?"
  ftp:
    host: "127.0.0.1"
    port: 21
    login: "user"
    password: "password"
    workdir: "test"

notifications:
  duplicate_delay_sec: 0
  antispam_time_sec: 0
  delay_push_time_millisec: 250

guard:
  deviceRequestDelay: 15000

#  swagger.      key -      swagger.
springdoc:
  swagger-ui:
    enabled: {{ 'true' if coreInternal.swagger.enable else 'false' }}
    key: ""

controller:
  delay_answer_from_control_millisec: 12000
  number_of_ping_threads: 1
  zway:
    logStringsLimit: 50

```

```

oauth2:
  clientParameters:
    web-client:
      type: WEB
      password: password
      clientAuthenticationMethod: client_secret_basic
      authorizationGrantTypes:
        - authorization_code
        - password
        - refresh_token
    {% if web.httpsPort != 443 %}
      redirectUri: "https://{{ web.serverName }}:{{ web.httpsPort }}/ng/login"
    {% else %}
      redirectUri: "https://{{ web.serverName }}/ng/login"
    {% endif %}
    allowAdminLogin: true
    allowRevokeAll: true
  android-client:
    type: ANDROID
    password: password
    clientAuthenticationMethod: client_secret_basic
    authorizationGrantTypes:
      - authorization_code
      - password
      - refresh_token
    redirectUri: "https://eltex.iot.app/authorization"
    allowRevokeAll: true
  ios-client:
    type: IOS
    password: password
    clientAuthenticationMethod: client_secret_basic
    authorizationGrantTypes:
      - authorization_code
      - password
      - refresh_token
    scopes:
      - read
      - write
      - trust
    redirectUri: "https://eltex.iot.app/authorization"
    allowRevokeAll: true
  {{ core.yandexSkill.clientId }}:
    type: YANDEX
    password: "{{ core.yandexSkill.password }}"
    clientAuthenticationMethod: client_secret_post
    authorizationGrantTypes:
      - authorization_code
      - refresh_token
    redirectUri: "https://social.yandex.net/broker/redirect"
    additionalAccount: YandexAccount
  {{ core.sberSkill.clientId }}:
    type: SBER
    password: "{{ core.sberSkill.password }}"
    clientAuthenticationMethod: client_secret_post
    authorizationGrantTypes:
      - authorization_code
      - refresh_token

```

```

    redirectUri: "https://social.yandex.net/broker/redirect"
    additionalAccount: YandexAccount
  {{ core.sberSkill.clientId }}:
    type: SBER
    password: "{{ core.sberSkill.password }}"
    clientAuthenticationMethod: client_secret_post
    authorizationGrantTypes:
      - authorization_code
      - refresh_token
    redirectUri: "https://gateway.iot.sberdevices.ru/gateway/v1/binder/backward"
    additionalAccount: SberAccount
  {{ core.marusyaSkill.clientId }}:
    type: MARUSYA
    password: "{{ core.marusyaSkill.password }}"
    clientAuthenticationMethod: client_secret_post
    authorizationGrantTypes:
      - authorization_code
      - refresh_token
    redirectUri: "https://vc.go.mail.ru/smarthouse/{{ core.marusyaSkill.appId }}/callback"
    additionalAccount: MarusyaAccount

#      ()
# https://yandex.ru/dev/dialogs/smart-home/doc/concepts/about.html
yandex-skill:
#      oauth2.clientParameters    client-id
client-id: "{{ core.yandexSkill.clientId }}"
#      API
callback-uri: "https://dialogs.yandex.net/api/v1/skills"
# Id ,      ( )
skill-id: "{{ core.yandexSkill.skillId }}"
# OAuth-,      ( )
oauth-token: "{{ core.yandexSkill.oauthToken }}"

#
# https://developers.sber.ru/docs/ru/smarthome/overview
sber-skill:
#      oauth2.clientParameters    client-id
client-id: "{{ core.sberSkill.clientId }}"
#      API
callback-uri: "https://partners.iot.sberdevices.ru"
# Bearer-,      ( )
bearer-token: "{{ core.sberSkill.bearerToken }}"

#      Mail.ru
# https://help.mail.ru/marusia/smart_home
marusya-skill:
#      oauth2.clientParameters    client-id
client-id: "{{ core.marusyaSkill.clientId }}"
#      API
callback-uri: "https://vc.go.mail.ru/smarthouse/events/yandex"

```

```

# Id , ( )
app-id: "{{ core.marusyaSkill.appId }}"
# OAuth-, ( )
oauth-token: "{{ core.marusyaSkill.oauthToken }}"

scriptengine:
#     executionNumberLimit.
#     scriptTimeLimit     scriptTimeLimit (),
#     .
frequentScript:
    executionNumberLimit: 60
    scriptTimeLimit: 60000
#     executionNumberLimit.
#     scriptTimeLimit     scriptTimeLimit (),
#     .
frequentScriptsInHouse:
    executionNumberLimit: 120
    scriptTimeLimit: 120000

logging:
config: "{{ coreInternal.logbackConfig }}"
logback:
    dir: "/var/log/eltex-sc"
{% if elk.enable %}
logstash:
    host: "{{ 'logstash' if iot.serverName == elk.serverName else elk.serverName }}"
    port: {{ 5000 if iot.serverName == elk.serverName else elkServices.logstash.port.map }}
{% endif %}
level:
    root: {{ core.logLevel }}
    org.springframework: WARN
    org.springframework.cache: WARN
    org.springframework.data: WARN
    org.springframework.web: WARN
    _org.springframework.web: WARN
    org.springframework.security: WARN
    org.springframework.security.oauth2: WARN
    org.springdoc: WARN
    org.mongodb: WARN
    org.eclipse.jetty: WARN
    org.apache.http: WARN
    org.hibernate: WARN
    org.jboss: WARN
    org.quartz.core.QuartzSchedulerThread: WARN
    io.swagger: WARN
    io.github.resilience4j: WARN
    io.netty: WARN
    io.mongock: WARN
    io.micrometer: WARN
    com.hazelcast: WARN
    com.hivemq: WARN

```

```
entitiesLimit:
  support:
    # 30
    maxNumberOfOpenTickets: 30
    #
    maxNumberOfMessagesPerDay: 1000
    # , .
    numberOfDaysForTicketExpired: 365

fileLimits:
  support:
    # () UI
    maxNumberOfUiLogFilesLinkToTicket: 2
    maxSizeOfUiLogFilesLinkToTicket: 10
    # ()
    maxNumberOfAttachedFilesLinkToTicket: 15
    maxSizeOfAttachedFilesLinkToTicket: 15
    # ()
    maxNumberOfAttachedFilesLinkToMessage: 1
    maxSizeOfAttachedFilesLinkToMessage: 10
    # () .
    maxSizeForFilesAttachedToChat: 20
    #
    #
    numberOfDaysForExpiredAttachmentsInChat: 7
```

- , :
- **8069** — Ethernet TCP-;
 - **8070** — WS- ;
 - **8071** — HTTP- API-;
 - **8072** — WSS- ;
 - **8073** — HTTPS- API-;
 - **8883** — MQTT-;
 - **8088** — CAPTCHA.


Eltex SC . - , Eltex Home.
 : < **Eltex SC** >.

- .

```
htop
```

 *MEM% CPU% mongo docker-.*

```
df -h
```

 .

Z-Wave Wi-Fi

```
netstat -na | grep 8070
netstat -na | grep 8883
```



```
, :
    • :
        • ESTABLISHED, LISTEN — ;
        • LAST_ACK — , IP;
        • TIME_WAIT, CLOSE_WAIT — , ;
    • 2- — ;
    • 3- — , ;
    • 5- — IP-.
```

- /storage/iot/core/var/log/eltex-sc/server*. (15 2022) , :

```
grep < > server-2022-01-15* > < >
```

```
, :
    • -i — ;
    • -n — ;
    • -h — ;
    • -A — ;
    • -B — .
```

```
grep -i -n -A 5 -B 2 error server-2022-01-15* > errors.log
```

```
:
    • ERROR;
    • ID IP;
    • PONG — , , .
```

-
- — (IP —).

API. URL - :

```
< Eltex SC>:< API>/api/v1/version
```

API — API HTTP (8071/8073). , API JSON.

```
{
  "version" : "1.27-3477",
  "api" : "1.0",
  "currentTime" : "2022-07-25T09:24:12.544842Z[Etc/UTC]"
}
```

http https



PKCS#8.

```
# head -1 /tmp/eltex-sc-api.key
-----BEGIN PRIVATE KEY-----

# head -1 /storage/iot/ssl/private/eltex-sc-api.key
-----BEGIN RSA PRIVATE KEY-----
```

- BEGIN PRIVATE KEY — PKCS#8;
- BEGIN RSA PRIVATE KEY — PKCS#1.

PKCS#1, PKCS#8.

PKCS#1 PKCS#8, letsencrypt:

```
openssl pkcs8 -topk8 -inform PEM -outform PEM -nocrypt -in ____ -out ____.
```

CAPTCHA

CAPTCHA . , - .

CAPTCHA `/etc/ansible-iot-1.27/templates/default-for-docker.yml.j2`

`/etc/ansible-iot-1.27/vars/service_params.yml`

`caseSensitive` .

`/etc/ansible-iot-1.27/vars/default.yml`

easy	.	.
medium	.	.
hard	.	.