

v1.19_APB

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- - /:
- - /etc/default/eltex-apb
 - /etc/eltex-apb/apb.properties
 - /etc/eltex-apb/ehcache.xml
 - /etc/eltex-apb/hosts.json
 - /etc/eltex-apb/log4j2.xml
-
- APB
-




Eltex-APB .:

- , WEB-
-

```
apt-get install eltex-apb
```

/:

	service eltex-apb status	<div><div></div><div>eltex-apb is running with pid <pid></div></div> <div><div></div><div>eltex-apb is not running</div></div>
	service eltex-apb start	<div><div></div><div>Starting eltex-apb ... eltex-apb started</div></div> <div><div></div><div>eltex-apb is already running</div></div>

	service eltex-apb stop	<div> Stopping eltex-apb ... eltex-apb stopped</div> <div> ... eltex-apb is not running rm: cannot remove '/var/run/eltex-apb.pid': No such file or directory</div>
	service eltex-apb restart	<div> Stopping eltex-apb ... eltex-apb stopped Starting eltex-apb ... eltex-apb started</div>

, :

http://localhost:8090/apb/ap.jsp

, :

http://localhost:8090/apb/users.jsp

/etc/default/eltex-apb

, .

/etc/default/eltex-apb

```
# Port for use by Access Point Binder service
PORT=8090
# Number of connection requests that can be queued
ACCEPT_QUEUE_SIZE=0
# Max text message buffer size, in bytes
MAX_TEXT_MESSAGE_BUFFER_SIZE=524288

# Path to Java executable
JAVA=/usr/bin/java

# Memory
JAVA_INIT_HEAP=128m
JAVA_MAX_HEAP=2048m

# To enable remote JMX monitoring uncomment the following line
#JMX_OPTS="-Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.port=8091 -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.local.only=false -Djava.rmi.server.hostname=127.0.0.1"
```

• :

```
PORT=8090
```

- , , , ():

```
ACCEPT_QUEUE_SIZE=0
```

- , :

```
MAX_TEXT_MESSAGE_BUFFER_SIZE=262144
```

- , (, , [/etc/eltex-apb/ehcache.xml](#)):

```
JAVA_INIT_HEAP=128m
JAVA_MAX_HEAP=2048m
```

[/etc/eltex-apb/apb.properties](#)

.

[/etc/eltex-apb/apb.properties](#)

```
mercury.host=localhost
mercury.port=6565
mercury.pool.size=100

# Config filePath to cache
cache.config=/etc/eltex-apb/ehcache.xml

# list of permitted files to
hosts.file=/etc/eltex-apb/hosts.json

# Timeout waiting for subscribe-request after connecting the access point to the server, in seconds
subscribe.idle.timeout=60

# Timeout during that the session will stay opened without receiving any message
message.idle.timeout=90

# Interval of ping to be sent to the websocket session
ping.idle.timeout=30

# Maximum count of outgoing messages to queue for each session
session.outgoingQueue=100
nbi.client.login=admin
nbi.client.password=password
```

- [Mercury](#):

```
mercury.host=localhost
mercury.port=6565
mercury.pool.size=100
```

- :

```
# Config filePath to cache
cache.config=/etc/eltex-apb/ehcache.xml

# list of permitted files to
hosts.file=/etc/eltex-apb/hosts.json
```

- , :

```
# Timeout waiting for subscribe-request after connecting the access point to the server, in seconds
subscribe.idle.timeout=60
```

- , :

```
# Timeout during that the session will stay opened without receiving any message
message.idle.timeout=9
```

- :

```
# Interval of ping to be sent to the websocket session
ping.idle.timeout=30
```

- :

```
# Maximum count of outgoing messages to queue for each session
session.outgoingQueue=100
```

- NBI:

```
nbi.client.login=admin
nbi.client.password=password
```

[/etc/eltex-apb/ehcache.xml](#)

Wi-Fi, . [/etc/eltex-apb/apb.properties](#).

/etc/eltex-apb/ehcache.xml

```
<ehcache xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
        xsi:noNamespaceSchemaLocation="http://www.ehcache.org/ehcache.xsd" updateCheck="false" monitoring="
autodetect"
        dynamicConfig="true">

    <!--cacheManagerPeerProviderFactory
        class="net.sf.ehcache.distribution.RMICacheManagerPeerProviderFactory"
        properties="peerDiscovery=manual,rmiUrls=//192.168.26.179:40001/users"/-->

    <!--cacheManagerPeerListenerFactory
        class="net.sf.ehcache.distribution.RMICacheManagerPeerListenerFactory"
        properties="hostName=192.168.26.205, port=40001, socketTimeoutMillis=2000"/-->

    <defaultCache
        maxEntriesLocalHeap="10000"
        eternal="false"
        timeToLiveSeconds="8600"
        timeToIdleSeconds="120"
        maxEntriesLocalDisk="10000000"
        diskExpiryThreadIntervalSeconds="120"
        memoryStoreEvictionPolicy="LRU">
        <pinning store="inCache" />
        <persistence strategy="localTempSwap"/>
    </defaultCache>

    <cache name="users"
        maxBytesLocalHeap="1G"
        eternal="false"
        timeToLiveSeconds="43200"
        memoryStoreEvictionPolicy="LRU">
        <pinning store="inCache" />
        <persistence strategy="none"/>

        <searchable keys="true" values="false" allowDynamicIndexing="false">
            <searchAttribute name="mobilityDomainBean" class="org.eltex.softwlc.apb.cache.
MobilityDomainAttributeExtractor"/>
            <searchAttribute name="account" class="org.eltex.softwlc.apb.cache.AccountAttributeExtractor"/>
        </searchable>

        <!--cacheEventListenerFactory
            class="net.sf.ehcache.distribution.RMICacheReplicatorFactory"
            properties="replicateAsynchronously=true, replicatePuts=true, replicateUpdates=true,
replicateRemovals=true " /-->
        </cache>

        <cache name="hosts" maxBytesLocalHeap="128M" eternal="true">
            <persistence strategy="none"/>
        </cache>

</ehcache>
```

- , "maxBytesLocalHeap" :

```
<cache name="users"
    maxBytesLocalHeap="200M"
    eternal="false"
    timeToLiveSeconds="43200"
    memoryStoreEvictionPolicy="LRU">
    . . .
</cache>
```

- , "maxBytesLocalHeap" :

```
<cache name="hosts" maxBytesLocalHeap="128M" eternal="true">
  <persistence strategy="none"/>
</cache>
```

/etc/eltex-apb/hosts.json

C . (IP-,). /etc/eltex-apb/apb.properties .

:

```
[
  {
    "mobility-domain-list": [
      {
        "mobility-domain": "nsk.ru",
        "radius-domain": "root",
        "ssid": "Eltex-Local"
      }
    ],
    "permitted-ip-list": [
      "eltex.nsk.ru",
      "eltex.org"
    ]
  },
  {
    "permitted-ip-list": [
      "esia-portall.test.gosuslugi.ru",
      "esia.gosuslugi.ru",
    ]
  }
]
```

- , :

```
[{
  "permitted-ip-list": [
    "esia-portall.test.gosuslugi.ru",
    "esia.gosuslugi.ru",
  ]
}]
```

- , SSID , :

```
[{
  "mobility-domain-list": [
    {
      "mobility-domain": "nsk.ru",
      "radius-domain": "root",
      "ssid": "Eltex-Local"
    }
  ],
  "permitted-ip-list": [
    "eltex.nsk.ru",
    "eltex.org"
  ]
}]
```

, , mobility-domain nsk.ru, radius-domain root, ssid – Eltex-Local, , eltex.nsk.ru eltex.org. , , «permitted-ip-list», , , «mobility-domain-list».

, IP- .



"mobility-domain" "ap-location" , .

/etc/eltex-apb/log4j2.xml

/etc/eltex-apb/log4j2.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<Configuration status="OFF" monitorInterval="10">
  <Properties>
    <Property name="rootLevel">${env:LOG_LEVEL:-INFO}</Property>

    <Property name="baseDir">/var/log/eltex-apb</Property>
    <Property name="maxFileSize">20 MB</Property>
    <Property name="accumulatedFileSize">100 MB</Property>
    <Property name="lastModified">4d</Property>
    <Property name="maxCount">7</Property>
    <Property name="logPattern">%d{ISO8601} [%t] %-5p %logger{1} %C{1}.%M(line:%L). %m%n</Property>
    <Property name="dateSuffix">%d{yyyyMMdd}</Property>

    <Property name="gelfLevel">${env:GELF_LEVEL:-OFF}</Property>
    <Property name="gelfHost">${env:GELF_HOST:-udp:lab3-test.eltex.loc}</Property>
    <Property name="gelfPort">${env:GELF_PORT:-12201}</Property>
  </Properties>

  <Appenders>
    <Console name="STDERR" target="System.err">
      <PatternLayout pattern="${logPattern}" />
    </Console>

    <RollingFile name="RollingFile"
      filename="${baseDir}/apb.log"
      filepattern="${baseDir}/log/apb-${dateSuffix}-%i.log.gz">
      <PatternLayout pattern="${logPattern}" />
      <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true" />
        <SizeBasedTriggeringPolicy size="${maxFileSize}" />
        <OnStartupTriggeringPolicy />
      </Policies>
      <DefaultRolloverStrategy max="${maxCount}">
        <Delete basePath="${baseDir}" maxDepth="1">
          <IfFileName glob="*/apb-*.log.gz">
            <IfAny>
              <IfAccumulatedFileSize exceeds="${accumulatedFileSize}" />
              <IfLastModified age="${lastModified}" />
            </IfAny>
          </IfFileName>
        </Delete>
      </DefaultRolloverStrategy>
    </RollingFile>

    <RollingFile name="CacheAppender"
      filename="${baseDir}/apb-cache.log"
      filepattern="${baseDir}/log/apb-cache-${dateSuffix}-%i.log.gz">
      <PatternLayout pattern="${logPattern}" />
      <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true" />
        <SizeBasedTriggeringPolicy size="${maxFileSize}" />
        <OnStartupTriggeringPolicy />
      </Policies>
      <DefaultRolloverStrategy max="${maxCount}">
```

```

        <Delete basePath="${baseDir}" maxDepth="1">
            <IfFileName glob="*/apb-cache-*.log">
                <IfAny>
                    <IfAccumulatedFileSize exceeds="${accumulatedFileSize}" />
                    <IfLastModified age="${lastModified}" />
                </IfAny>
            </IfFileName>
        </Delete>
    </DefaultRolloverStrategy>
</RollingFile>

<Gelf name="Gelf" host="${gelfHost}" port="${gelfPort}" version="1.1" facility="eltex-apb"
    extractStackTrace="true" originHost="%host{fqdn}" maximumMessageSize="8192">
    <Field name="thread" pattern="%t" />
    <Field name="level" pattern="%level" />
    <Field name="severity" pattern="%-5level" />
    <Field name="logger" pattern="%logger{1}" />
    <Field name="location" pattern="%C{1}.%M(line:%L)" />
</Gelf>
</Appenders>

<Loggers>
    <Root level="${rootLevel}">
        <AppenderRef ref="RollingFile" />
        <AppenderRef ref="STDERR" level="OFF" />
        <AppenderRef ref="Gelf" level="${gelfLevel}" />
    </Root>

    <Logger name="org.springframework" level="ERROR" />
    <Logger name="org.apache" level="ERROR" />
    <Logger name="org.quartz" level="ERROR" />
    <Logger name="io.netty" level="ERROR" />
    <Logger name="io.grpc" level="ERROR" />

    <Logger name="net.sf.ehcache" additivity="false">
        <AppenderRef ref="CacheAppender" level="DEBUG" />
        <AppenderRef ref="RollingFile" level="ERROR" />
    </Logger>

</Loggers>
</Configuration>

```

- :

```
<Configuration status="OFF" monitorInterval="10">
```

- :

```
<Property name="rootLevel">${env:LOG_LEVEL:-INFO}</Property>
```

- :

```
<Property name="baseDir">/var/log/eltex-apb</Property>
```

- (.):

```
<Property name="maxFileSize">20 MB</Property>
```

- (+). :

```
<Property name="accumulatedFileSize">100 MB</Property>
```

- , :


```
<Property name="lastModified">4d</Property>
```

- , :

```
<Property name="maxCount">7</Property>
```

- Graylog (, ,):

```
<Property name="gelfLevel">${env:GELF_LEVEL:-OFF}</Property>
<Property name="gelfHost">${env:GELF_HOST:-udp:lab3-test.eltex.loc}</Property>
<Property name="gelfPort">${env:GELF_PORT:-12201}</Property>
```

APB Prometheus . :

```
http://< APB>:<>/apb/api/metrics
```

Prometheus :

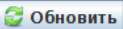
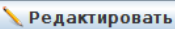

```
- job_name: 'apb'
  metrics_path: '/apb/api/metrics'
  static_configs:
    - targets: ['< APB>:<>']
```

APB, 8090.

APB

APB GUI EMS.

Captive Portal.Global, Roaming Service URL : «<IP-a_apb>:8090». IP-a APB .

Description	Пользователи Wi-Fi	Мониторинг конкурентных ТД	Мониторинг	Конфигурация	RRD statistics	Access
Network						
Wireless settings	  					
Access						
Radio interfaces	Captive Portal Mode <input type="text" value="On"/>					
Virtual access points	Authentication Timeout, sec <input type="text" value="300"/>					
Key holder data	Additional HTTP Port <input type="text" value="0"/>					
Global RADIUS	Additional HTTPS Port <input type="text" value="0"/>					
QoS. Main	White IP delay <input type="text" value="3"/>					
QoS. EDCA parameters	Debug Level <input type="text" value="0"/>					
Client QoS. Global	Roaming service address <input type="text" value="172.16.0.134:8090"/>					
Client QoS. Class Map	Roaming no action timeout, min <input type="text" value="720"/>					
Client QoS. Policy Map	AP IP alias <input type="text" value="redirect.loc"/>					
WDS	Disconnect before redirect <input type="text" value="Off"/>					
Captive Portal. Global						
Captive Portal. Instance						
Cluster. Main						
AirTune service						
System time						
System events						
SNMP						
SNMP trap						
CLI/telnet						
CLI/ssh						

«Roaming no action timeout» (, /). «Roaming no action timeout» .

EMS Wireless

Тип устройства Universal

Имя шаблона apb

Домен root

Выберите вкладки

- ☐ Выбрать все
- ☐ Сеть
- ☐ Доступ
- ☐ WIDS/WIPS
- ☐ Mesh
- ☐ Z-Wave
- ☐ Global RADIUS
- ☐ QoS. Main
- ☐ QoS. EDCA parameters
- ☐ Client QoS. Global
- ☒ Captive Portal. Global
- ☐ Cluster. Main
- ☐ AirTune сервис
- ☐ Системное время
- ☐ Системные события
- ☐ SNMP
- ☐ SNMP trap

Принять Отменить

- « » - «Universal»
- « » - «apb» ()
- « » - «root»
- «Captive Portal. Global» -



Captive Portal Mode

Authentication Timeout, sec

Additional HTTP Port

Additional HTTPS Port

White IP delay

Debug Level

Адрес service роуминга

Roaming no action timeout, min

AP IP alias

Disconnect before redirect

Принять Отменить

- «service» - APB «<IP-a_apb>:8090»
- «Roaming no action timeout, min» -
- «AP IP alias» - «redirect.loc»

Главное

Тип устройства

★ WEP-12ac ▼

Имя правила

★ WEP-12ac

Домен правила

★ root

Описание

RADIUS

Добавить ТД в RADIUS

☒

Ключ

★ eltex

Обновление ПО

Обновить на актуальный файл ПО

☐

Протокол загрузки ПО

HTTP ▼

Конфигурация

Восстановить конфигурацию по умолчанию

☐

Использовать индивидуальный шаблон

☒

Шаблон конфигурации

apb_root ▼

Доступ

SNMP транспорт

TCP ▼

SNMP Community (только чтение)

★ public

SNMP Community (чтение/запись)

★ private

✓ Принять

✗ Отменить

/ « » «apb_root», «_». , APB .

1.10.0 WEP/WOP-12/12 rev.C/2ac («User Mobility Domain») «AP location, domain», , .

:

Описание	Пользователи Wi-Fi	Мониторинг конкурентных ТД	Мониторинг	Конфигурация	Статистика RRD	Доступ
----------	--------------------	----------------------------	------------	--------------	----------------	--------

Сеть

Беспроводной доступ

Доступ

Радио интерфейсы

Виртуальные точки доступа

Key holder data

Global RADIUS

QoS. Main

QoS. EDCA parameters

Client QoS. Global

Client QoS. Class Map

Client QoS. Policy Map

WDS

Captive Portal. Global

Captive Portal. Instance

Cluster. Main

AirTune сервис

Системное время

Системные события

SNMP

SNMP trap

CLI/ssh

CLI/telnet

Обновить

Редактировать

В XML

Сетевое имя

WEF-12ac

AP location, domain

ap.hotspot.service.root

Management VLAN ID

1

Untagged VLAN

On

Untagged VLAN ID

1

Management MTU

1500

Получение сетевых параметров по DHCP

On

IP-адрес основного DNS-сервера

IP-адрес резервного DNS-сервера

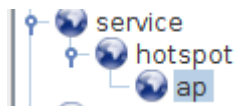
Местоположение


Default

:

Сетевое имя	WEF-12ac
AP location, domain	ap.hotspot.service.root
Management VLAN ID	1
Untagged VLAN	On
Untagged VLAN ID	1
Management MTU	1500
Получение сетевых параметров по DHCP	On
IP-адрес основного DNS-сервера	
IP-адрес резервного DNS-сервера	
Местоположение	Default

,  «AP location, domain», :



·
- ( Сохранить).

« » SSID Captive Portal «User Mobility Domain» (,).

RADIUS порт	1812
----- Minimal signal -----	
Enabled	<input type="checkbox"/>
----- Captive portal -----	
Enabled	<input checked="" type="checkbox"/>
Virtual portal name	working
Протокол	HTTP
Verification	CaptivePortal
Redirect	<input type="checkbox"/>
External	<input checked="" type="checkbox"/>
External URL	http://softwlc.eltex.loc:8080/eltex_portal/
Away Time, min	0
Session Timeout, min	0
User mobility domain (FW 1.9.0)	ap.hotspot.service.root

☒ Принять
 ☒ Отменить

docker-. docker-compose.yml.
 , deb-.

docker-compose.yml

```
version: "2.4"

volumes:
  softwlc_logs:
    driver: local

services:
  apb:
    container_name: apb
    image: hub.eltex-co.ru/softwlc/eltex-apb:1.19-<tag>
    ports:
      - 8090:8090
      - 8092:8092
    volumes:
      - "/etc/eltex-apb:/etc/eltex-apb"
      - "softwlc_logs:/var/log"
    environment:
      - "JAVA_OPTS=-Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.port=8092 -Dcom.sun.management.jmxremote.rmi.port=8092 -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.local.only=false -Djava.rmi.server.hostname=<IP-address>"
```

 <tag> , .

"-Djava.rmi.server.hostname=<IP-address>" <IP-address> ip- , .

, :

- **PORT** - , ,
- **JAVA_INIT_HEAP** - a.k.a. -Xms JVM ,
- **JAVA_MAX_HEAP** - a.k.a. -Xmx JVM ,
- **DEBUG_PORT** - JMX,
- **JAVA_OPTS** - JVM ().

, .env, , :

```
.env

PORT=8090
JAVA_INIT_HEAP=128m
JAVA_MAX_HEAP=2048m
DEBUG_PORT=8092
JAVA_OPTS=-Dcom.sun.management.jmxremote -Dcom.sun.management.jmxremote.ssl=false -Dcom.sun.management.jmxremote.authenticate=false -Dcom.sun.management.jmxremote.local.only=false -Djava.rmi.server.hostname=<IP-address>
```

"environment" :

```
environment:
  - JAVA_OPTS=${JAVA_OPTS}
  - PORT=${PORT}
  - JAVA_INIT_HEAP=${JAVA_INIT_HEAP}
  - JAVA_MAX_HEAP=${JAVA_MAX_HEAP}
  - DEBUG_PORT=${DEBUG_PORT}
```

.env docker-compose.yml
