

v1.20_ EMS

- [illegible]

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/usr/lib/eltex-ems/conf/config.txt
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```
# DB Event
poolName1=event
event.jdbc.driver=org.gjt.mm.mysql.Driver
event.jdbc.dbUrl=jdbc:mysql://localhost/eltex_alert?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
event.jdbc.username=javauser
event.jdbc.password=javapassword
event.jdbc.maxPoolSize=32
event.jdbc.inUse=yes
# remote db host access with su privileges
# event.ssh.login=
# event.ssh.password=
# event.ssh.port=

# DB Tree
poolName2=tree
tree.jdbc.driver=org.gjt.mm.mysql.Driver
tree.jdbc.dbUrl=jdbc:mysql://localhost/eltex_ems?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&noAccessToProcedureBodies=true&useSSL=false
tree.jdbc.username=javauser
tree.jdbc.password=javapassword
tree.jdbc.maxPoolSize=20
tree.jdbc.inUse=yes

# DB Ont
poolName3=ont
ont.jdbc.driver=org.gjt.mm.mysql.Driver
ont.jdbc.dbUrl=jdbc:mysql://localhost/eltex_ont?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
ont.jdbc.username=javauser
ont.jdbc.password=javapassword
ont.jdbc.maxPoolSize=40
ont.jdbc.inUse=yes

# DB Syslog
poolName4=syslog
syslog.jdbc.driver=org.gjt.mm.mysql.Driver
syslog.jdbc.dbUrl=jdbc:mysql://localhost/Syslog?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
syslog.jdbc.username=javauser
syslog.jdbc.password=javapassword
syslog.jdbc.maxPoolSize=4
syslog.jdbc.inUse=yes
# remote db host access with su privileges
# syslog.ssh.login=
# syslog.ssh.password=
# syslog.ssh.port=

# DB acsmain (alias=cpe)
poolName5=cpe
cpe.jdbc.driver=org.gjt.mm.mysql.Driver
cpe.jdbc.dbUrl=jdbc:mysql://localhost/acsmain?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
cpe.jdbc.username=javauser
cpe.jdbc.password=javapassword
cpe.jdbc.maxPoolSize=2
cpe.jdbc.inUse=yes

# DB acscmds(alias=cmds)
poolName6=cmds
cmds.jdbc.driver=org.gjt.mm.mysql.Driver
cmds.jdbc.dbUrl=jdbc:mysql://localhost/acscmds?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
cmds.jdbc.username=javauser
cmds.jdbc.password=javapassword
cmds.jdbc.maxPoolSize=2
cmds.jdbc.inUse=yes
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# DB  acsinf(alias=inf)
poolName7=inf
inf.jdbc.driver=org.gjt.mm.mysql.Driver
inf.jdbc.dbUrl=jdbc:mysql://localhost/acsinf?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
inf.jdbc.username=javauser
inf.jdbc.password=javapassword
inf.jdbc.maxPoolSize=2
inf.jdbc.inUse=yes

# DB  acscache(alias=cache)
poolName8=cache
cache.jdbc.driver=org.gjt.mm.mysql.Driver
cache.jdbc.dbUrl=jdbc:mysql://localhost/acscache?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
cache.jdbc.username=javauser
cache.jdbc.password=javapassword
cache.jdbc.maxPoolSize=2
cache.jdbc.inUse=yes

# DB  radius(alias=radius)
poolName9=radius
radius.jdbc.driver=org.gjt.mm.mysql.Driver
radius.jdbc.dbUrl=jdbc:mysql://localhost/radius?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
radius.jdbc.username=javauser
radius.jdbc.password=javapassword
radius.jdbc.maxPoolSize=40
radius.jdbc.inUse=yes
# remote db host access with su privileges
# radius.ssh.login=
# radius.ssh.password=
# radius.ssh.port=

# ----- SSID -----
# DB  wireless (alias=wireless)
poolName10=wireless
wireless.jdbc.driver=org.gjt.mm.mysql.Driver
wireless.jdbc.dbUrl=jdbc:mysql://localhost/wireless?
useUnicode=true&characterEncoding=utf8&relaxAutoCommit=true&connectTimeout=5000&useSSL=false
wireless.jdbc.username=javauser
wireless.jdbc.password=javapassword
wireless.jdbc.maxPoolSize=30
wireless.jdbc.inUse=yes

# memcached server address
#memcached_server_ip_port=127.0.0.1:11211

```

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,      'radius':
    • poolName -      EMS;
    • radius.jdbc.dbUrl -      ;
    • radius.jdbc.username -      ;
    • radius.jdbc.password -      ;
    • radius.jdbc.maxPoolSize - , EMS      ,      MySQL.      ONT CPE,      ont, cpe, cmds, inf, cache      0.
    • ssh      , EMS      .

```

/usr/lib/eltex-ems/conf/log4j2.xml

EMS.

/usr/lib/eltex-ems/conf/log4j2.xml

```

<?xml version="1.0" encoding="UTF-8"?>

<!--
    Use log4j version 2 - EMS server

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error black_box -      :
1)  - () -      .
2)  () -      .

configuration
- monitorInterval="30" -      - 30 -      .
  - 36000 - 10 .
-->

<configuration monitorInterval="600">

  <properties>
    <property name="basedir">/var/log/eltex-ems</property>
    <property name="maxSize">20 MB</property>
    <property name="maxCount">20</property>

    <property name="gelfHost">udp:lab3-test.eltex.loc</property>
    <property name="gelfPort">12201</property>
    <property name="gelfLevel">OFF</property>

    <Property name="dateSuffix">%d{yyyyMMdd}</Property>
    <property name="pattern">%d{ISO8601} [%t] %-5p %logger{1} %C{1}.%M(line:%L). %m%n</property>
  </properties>

  <appenders>

    <!-- ===== black_box ===== -->

    <!-- 1) - - -      maxCount -      . ,      . - - . -->

    <RollingFile name="black" fileName="${basedir}/black_box.txt"
      filePattern="${basedir}/black_box/black_box-${dateSuffix}-%i.txt.gz">
      <ThresholdFilter level="INFO" onMatch="ACCEPT" onMismatch="DENY"/>
      <PatternLayout>
        <pattern>${pattern}</pattern>
      </PatternLayout>
      <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
      </Policies>
      <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- ===== error ===== -->

    <!-- 1) - - -      -      maxCount -      -->

    <RollingFile name="errorLog" fileName="${basedir}/error.log" filePattern="${basedir}/error
/error-${dateSuffix}-%i.log.gz">
      <ThresholdFilter level="ERROR" onMatch="ACCEPT" onMismatch="DENY"/>
      <PatternLayout>
        <pattern>${pattern}</pattern>
      </PatternLayout>
      <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
      </Policies>
      <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- ===== unknown ===== -->

    <!-- , , AsyncAppender ( ). - . -->
    <RollingFile name="unknownLog" fileName="${basedir}/unknown.log"
      filePattern="${basedir}/unknown/unknown-${dateSuffix}-%i.log.gz">
      <ThresholdFilter level="ERROR" onMatch="ACCEPT" onMismatch="DENY"/>
      <PatternLayout>
        <pattern>${pattern}</pattern>
      </PatternLayout>
      <Policies>

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        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!--           ,   logger.debug,
- ..         ,   .
bufferSize -   (   - 128). -->
<Async name="async">
    <appender-ref ref="black"/>
    <appender-ref ref="errorLog"/>
    <!--           ,   AsyncAppender   (   ).   -   . -->
    <error-ref>unknowLog</error-ref>
</Async>

<Syslog name="syslogApp" format="RFC5424" host="192.168.1.1" port="514"
    protocol="UDP" appName="Eltex" includeMDC="true" mdcId="mdcId"
    facility="USER" enterpriseNumber="18060" newLine="true"
    messageId="Audit" id="App"/>

<!--           syslog.           ,   INFO -->
<Syslog name="TrapSyslog" format="RFC5424" host="192.168.1.1" port="514"
    protocol="UDP" appName="Eltex-EMS" includeMDC="true" mdcId="mdcId"
    facility="USER" enterpriseNumber="18060" newLine="true"
    messageId="Audit" id="App">
    <ThresholdFilter level="ERROR" onMatch="ACCEPT" onMismatch="DENY"/>
</Syslog>

<Gelf name="Gelf" host="${gelfHost}" port="${gelfPort}" version="1.1" facility="eltex-ems"
    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>

<!-- . -->
<RollingFile name="testLog" fileName="${basedir}/test.txt" filePattern="${basedir}/test
/test-${dateSuffix}-%i.txt.gz">
    <!--ThresholdFilter level="DEBUG" onMatch="ACCEPT" onMismatch="DENY"-->
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- ===== -->

<RollingFile name="HandlersPool" fileName="${basedir}/monitor/HandlersPool/handlers_pool.log"
    filePattern="${basedir}/monitor/HandlersPool/handlers_pool-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="CheckDbConnect" fileName="${basedir}/monitor/CheckDbConnect/check_db.log"
    filePattern="${basedir}/monitor/CheckDbConnect/check_db-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>

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        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="AlertsSynchronized" fileName="${basedir}/monitor/AlertsSynchronized/alerts_sync.log"
        filePattern="${basedir}/monitor/AlertsSynchronized/alerts_sync-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="AlertsArchiving" fileName="${basedir}/monitor/AlertsArchiving/alerts_archiving.log"
        filePattern="${basedir}/monitor/AlertsArchiving/alerts_archiving-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="FwReports" fileName="${basedir}/monitor/FwReports/fw_reports.log"
        filePattern="${basedir}/monitor/FwReports/fw_reports-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="MonitoringTask" fileName="${basedir}/monitor/MonitoringTask/monitoring_task.log"
        filePattern="${basedir}/monitor/MonitoringTask/monitoring_task-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="UploadConfigure" fileName="${basedir}/monitor/UploadConfigure/upload_configure.log"
        filePattern="${basedir}/monitor/UploadConfigure/upload_configure-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <RollingFile name="SystemBackup" fileName="${basedir}/monitor/SystemBackup/system_backup.log"
        filePattern="${basedir}/monitor/SystemBackup/system_backup-${dateSuffix}-%i.log.gz">
        <PatternLayout>

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        <pattern>${pattern}</pattern>
    </PatternLayout>
</Policies>
    <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
    <SizeBasedTriggeringPolicy size="${maxSize}"/>
</Policies>
<DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="SyncPon" fileName="${basedir}/monitor/SyncPon/sync_pon.log"
    filePattern="${basedir}/monitor/SyncPon/sync_pon-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="EmsServerDiagnostics" fileName="${basedir}/monitor/EmsServerDiagnostics
/ems_server_diagnostics.log"
    filePattern="${basedir}/monitor/EmsServerDiagnostics/ems_server_diagnostics-${dateSuffix}-%
i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="SystemBackupDiagnostics" fileName="${basedir}/monitor/SystemBackupDiagnostics
/system_backup_diagnostics.log"
    filePattern="${basedir}/monitor/SystemBackupDiagnostics
/system_backup_diagnostics-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="SyslogCleaner" fileName="${basedir}/monitor/SyslogCleaner/syslog_clean.log"
    filePattern="${basedir}/monitor/SyslogCleaner/syslog_clean-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="AlertsClose" fileName="${basedir}/monitor/AlertsClose/alerts_close.log"
    filePattern="${basedir}/monitor/AlertsClose/alerts_close-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>

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</RollingFile>

<RollingFile name="LogsDirCleaner" fileName="${basedir}/monitor/LogsDirCleaner/logsdir_clean.log"
    filePattern="${basedir}/monitor/LogsDirCleaner/logsdir_clean-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="FwStationUpdate" fileName="${basedir}/monitor/FwStationUpdate/station_update.log"
    filePattern="${basedir}/monitor/FwStationUpdate/station_update-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="CheckOLTTermoMonitor" fileName="${basedir}/monitor/CheckOLTTermoMonitor
/temperature_scan.log"
    filePattern="${basedir}/monitor/CheckOLTTermoMonitor/temperature_scan-${dateSuffix}-%i.log.
gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="LogsSender" fileName="${basedir}/monitor/LogsSender/logsdir_sender.log"
    filePattern="${basedir}/monitor/LogsSender/logsdir_sender-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<RollingFile name="SwitchCounterCleaner" fileName="${basedir}/monitor/SwitchCounterCleaner
/switch_counter_clean.log"
    filePattern="${basedir}/monitor/SwitchCounterCleaner/switch_counter_clean-${dateSuffix}-%i.
log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- ACS -->
<RollingFile name="CheckAcSdBk" fileName="${basedir}/monitor/CheckAcSdBk/acsd_break.log"
    filePattern="${basedir}/monitor/CheckAcSdBk/acsd_break-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>

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        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- GePON -->
    <RollingFile name="FwNteUpdate" fileName="${basedir}/monitor/FwNteUpdate/nte_update.log"
        filePattern="${basedir}/monitor/FwNteUpdate/nte_update-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- RADIUS -->
    <RollingFile name="NasAndTreeObjFitnessMonitor" fileName="${basedir}/monitor/NasAndTreeObjFitnessMonitor
/nas_treeobj_fitness.log"
        filePattern="${basedir}/monitor/NasAndTreeObjFitnessMonitor
/nas_treeobj_fitness-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- GPON -->
    <RollingFile name="NtpOmciSheduler" fileName="${basedir}/monitor/NtpOmciSheduler/ntp_omci_sheduler_log.
log"
        filePattern="${basedir}/monitor/NtpOmciSheduler/ntp_omci_sheduler_log-${dateSuffix}-%i.log.
gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>
    <RollingFile name="GponOntAutoupdateFlag" fileName="${basedir}/monitor/GponOntAutoupdateFlag
/gpon_ont_autoupdate_flag.log"
        filePattern="${basedir}/monitor/GponOntAutoupdateFlag
/gpon_ont_autoupdate_flag-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="${maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="${maxCount}"/>
    </RollingFile>

    <!-- PON COMMON -->
    <RollingFile name="OntProblems" fileName="${basedir}/monitor/OntProblems/ont_problems.log"
        filePattern="${basedir}/monitor/OntProblems/ont_problems-${dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>${pattern}</pattern>
        </PatternLayout>

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        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}"/>
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}"/>
    </RollingFile>

<!-- Ott Overdue -->
<RollingFile name="OttOverdue" fileName="{basedir}/monitor/OttOverdue/ott_overdue.log"
    filePattern="{basedir}/monitor/OttOverdue/ott_overdue-{$dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>{$pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="{maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="{maxCount}"/>
</RollingFile>

<!-- TL1 -->
<RollingFile name="TL1" fileName="{basedir}/modules/TL1/tl1.log"
    filePattern="{basedir}/modules/TL1/tl1-{$dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>{$pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="{maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="{maxCount}"/>
</RollingFile>

<!-- Feature #26980      '-'    xml    -->
<RollingFile name="Language" fileName="{basedir}/language/language.log"
    filePattern="{basedir}/language/language-{$dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>{$pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="{maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="{maxCount}"/>
</RollingFile>

<!--appender type="List" name="List"></appender-->

<!-- PON COMMON -->
<RollingFile name="SyncPonProfiles" fileName="{basedir}/monitor/SyncPonProfiles/sync_pon_profiles.log"
    filePattern="{basedir}/monitor/SyncPonProfiles/sync_pon_profiles-{$dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>{$pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="{maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="{maxCount}"/>
</RollingFile>

<!-- SsidLinkCheckMonitor -->
<RollingFile name="SsidLinkCheck" fileName="{basedir}/monitor/SsidLinkCheck/ssid_link_check.log"
    filePattern="{basedir}/monitor/SsidLinkCheck/ssid_link_check-{$dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>{$pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="{maxSize}"/>
    </Policies>

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        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <RollingFile name="RadiusBackup" fileName="{basedir}/monitor/RadiusBackup/radius_backup.log"
        filePattern="{basedir}/monitor/RadiusBackup/radius_backup-{dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>{pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}" />
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <RollingFile name="SsidSchedulerCheck" fileName="{basedir}/monitor/SsidSchedulerCheck/ssid_scheduler.
log"
        filePattern="{basedir}/monitor/SsidSchedulerCheck/ssid_scheduler-{dateSuffix}-%i.log.gz">
        <PatternLayout>
            <pattern>{pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}" />
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <RollingFile name="WifiAlienMonitor" fileName="{basedir}/monitor/WifiAlienMonitor/wifi_alien_monitor.
log"
        filePattern="{basedir}/monitor/WifiAlienMonitor/wifi_alien_monitor-{dateSuffix}-%i.log.
gz">
        <PatternLayout>
            <pattern>{pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}" />
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <RollingFile name="SsidApbCheckMonitor" fileName="{basedir}/monitor/SsidApbCheckMonitor/ssid_apb_check.
log"
        filePattern="{basedir}/monitor/SsidApbCheckMonitor/ssid_apb_check-{dateSuffix}-%i.log.gz"
    >
        <PatternLayout>
            <pattern>{pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}" />
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <RollingFile name="LossCommunication" fileName="{basedir}/monitor/LossCommunication
/wifi_loss_communication.log"
        filePattern="{basedir}/monitor/LossCommunication/wifi_loss_communication-{dateSuffix}-%i.
log.gz">
        <PatternLayout>
            <pattern>{pattern}</pattern>
        </PatternLayout>
        <Policies>
            <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
            <SizeBasedTriggeringPolicy size="{maxSize}" />
        </Policies>
        <DefaultRolloverStrategy max="{maxCount}" />
    </RollingFile>

    <!-- Eltex Radius NBI -->

```

```

<RollingFile name="NBI" fileName="${basedir}/modules/NBI/nbi.log"
    filePattern="${basedir}/modules/NBI/nbi-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- Eltex PCRF -->
<RollingFile name="PCRF" fileName="${basedir}/modules/PCRF/pcrf.log"
    filePattern="${basedir}/modules/PCRF/pcrf-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- Eltex SORM2 -->
<RollingFile name="SORM2" fileName="${basedir}/modules/sorm2/sorm2.log"
    filePattern="${basedir}/modules/sorm2/sorm2-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- Eltex APB -->
<RollingFile name="APB" fileName="${basedir}/modules/apb/apb.log"
    filePattern="${basedir}/modules/apb/apb-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

<!-- AccountExpireMonitor -->
<RollingFile name="AccountExpire" fileName="${basedir}/monitor/AccountExpire/account_expire.log"
    filePattern="${basedir}/monitor/AccountExpire/account_expire-${dateSuffix}-%i.log.gz">
    <PatternLayout>
        <pattern>${pattern}</pattern>
    </PatternLayout>
    <Policies>
        <TimeBasedTriggeringPolicy interval="1" modulate="true"/>
        <SizeBasedTriggeringPolicy size="${maxSize}"/>
    </Policies>
    <DefaultRolloverStrategy max="${maxCount}"/>
</RollingFile>

</appenders>

<loggers>
    <!-- ===== -->
    <!--
    additivity="false" - ..
    TRUE - - , errorLog ERROR.

```

```
-->
<logger name="gpon_ont_autoupdate_flag" level="error" additivity="true">
  <appender-ref ref="GponOntAutoupdateFlag"/>
</logger>
<logger name="ntp_omci_scheduler_log" level="error" additivity="true">
  <appender-ref ref="NtpOmciScheduler"/>
</logger>
<logger name="nte_update" level="error" additivity="true">
  <appender-ref ref="FwNteUpdate"/>
</logger>
<logger name="acsd_break" level="error" additivity="true">
  <appender-ref ref="CheckAcsdBreak"/>
</logger>
<logger name="logsdir_sender" level="error" additivity="true">
  <appender-ref ref="LogsSender"/>
</logger>
<logger name="temperature_scan" level="error" additivity="true">
  <appender-ref ref="CheckOLTTermoMonitor"/>
</logger>
<logger name="station_update" level="error" additivity="true">
  <appender-ref ref="FwStationUpdate"/>
</logger>
<logger name="logsdir_clean" level="error" additivity="true">
  <appender-ref ref="LogsDirCleaner"/>
</logger>
<logger name="syslog_clean" level="error" additivity="true">
  <appender-ref ref="SyslogCleaner"/>
</logger>
<logger name="alerts_close" level="error" additivity="true">
  <appender-ref ref="AlertsClose"/>
</logger>
<logger name="ems_server_diagnostics" level="error" additivity="true">
  <appender-ref ref="EmsServerDiagnostics"/>
</logger>
<logger name="system_backup_diagnostics" level="error" additivity="true">
  <appender-ref ref="SystemBackupDiagnostics"/>
</logger>
<logger name="sync_pon" level="error" additivity="true">
  <appender-ref ref="SyncPon"/>
</logger>
<logger name="upload_configure" level="error" additivity="true">
  <appender-ref ref="UploadConfigure"/>
</logger>
<logger name="system_backup" level="error" additivity="true">
  <appender-ref ref="SystemBackup"/>
</logger>
<logger name="monitoring_task" level="error" additivity="true">
  <appender-ref ref="MonitoringTask"/>
</logger>
<logger name="fw_reports" level="error" additivity="true">
  <appender-ref ref="FwReports"/>
</logger>
<logger name="ott_overdue" level="error" additivity="true">
  <appender-ref ref="OttOverdue"/>
</logger>
<logger name="alerts_archiving" level="error" additivity="true">
  <appender-ref ref="AlertsArchiving"/>
</logger>
<logger name="alerts_sync" level="error" additivity="true">
  <appender-ref ref="AlertsSynchronized"/>
</logger>
<logger name="handlers_pool" level="error" additivity="true">
  <appender-ref ref="HandlersPool"/>
</logger>
<logger name="check_db" level="error" additivity="true">
  <appender-ref ref="CheckDbConnect"/>
</logger>
<logger name="ont_problems" level="error" additivity="true">
  <appender-ref ref="OntProblems"/>
</logger>
<logger name="switch_counter_clean" level="error" additivity="true">
```

```

        <appender-ref ref="SwitchCounterCleaner"/>
    </logger>
    <logger name="sync_pon_profiles" level="error" additivity="true">
        <appender-ref ref="SyncPonProfiles"/>
    </logger>
    <logger name="ssid_link_check" level="error" additivity="true">
        <appender-ref ref="SsidLinkCheck"/>
    </logger>
    <logger name="nas_treeobj_fitness" level="error" additivity="true">
        <appender-ref ref="NasAndTreeObjFitnessMonitor"/>
    </logger>
    <logger name="radius_backup" level="error" additivity="true">
        <appender-ref ref="RadiusBackup"/>
    </logger>
    <logger name="ssid_scheduler" level="error" additivity="true">
        <appender-ref ref="SsidSchedulerCheck"/>
    </logger>

    <logger name="TL1" level="error" additivity="true">
        <appender-ref ref="TL1"/>
    </logger>

    <logger name="Language" level="error" additivity="true">
        <appender-ref ref="Language"/>
    </logger>
    <logger name="wifi_alien_monitor" level="error" additivity="true">
        <appender-ref ref="WifiAlienMonitor"/>
    </logger>
    <logger name="ssid_apb_check" level="error" additivity="true">
        <appender-ref ref="SsidApbCheckMonitor"/>
    </logger>
    <logger name="wifi_loss_communication" level="error" additivity="true">
        <appender-ref ref="LossCommunication"/>
    </logger>

    <!-- ===== -->
    <!--
        Syslog      syslogApp
        additivity="false" - .. -->
    <logger name="Syslog" level="error" additivity="false">
        <appender-ref ref="syslogApp"/>
    </logger>

    <logger name="NBI" level="debug" additivity="true">
        <appender-ref ref="NBI"/>
    </logger>

    <logger name="PCRF" level="debug" additivity="true">
        <appender-ref ref="PCRF"/>
    </logger>

    <logger name="SORM2" level="debug" additivity="true">
        <appender-ref ref="SORM2"/>
    </logger>

    <logger name="APB" level="debug" additivity="true">
        <appender-ref ref="APB"/>
    </logger>

    <logger name="TRAP_SYSLOG" level="OFF" additivity="false">
        <appender-ref ref="TrapSyslog"/>
    </logger>

    <logger name="AUTH_SYSLOG" level="OFF" additivity="false">
        <appender-ref ref="TrapSyslog" />
    </logger>

    <!-- . . -->
    <!--logger name="Kernel" level="error">
        <appender-ref ref="black"/>

```

```

</logger>

<logger name="DB" level="error">
    <appender-ref ref="black"/>
</logger-->

<!-- snmp4j log4j . -->
<logger name="org.snmp4j" level="error">
    <appender-ref ref="black"/>
</logger>

<!-- . . -->
<logger name="org.apache" level="error">
</logger>

<!--logger name="org.apache.log4j.xml" level="error">
    <appender-ref ref="black"/>
</logger-->

<!-- ===== -->
<!--
    - test.txt (ref="testLog")
    ( - additivity=false).
-->

<!-- wifi.associateClientsSize -->
<logger name="wifiAssocClient" level="info" additivity="false">
    <appender-ref ref="testLog"/>
</logger>

<!-- . -->
<logger name="dbConn" level="error" additivity="false">
    <appender-ref ref="testLog"/>
</logger>

<!-- ===== -->
<!-- DEBUG. . -->
<root level="debug">
    <!--appender-ref ref="List"/-->
    <!--appender-ref ref="async"/-->
    <appender-ref ref="errorLog"/>
    <appender-ref ref="black"/>
    <appender-ref ref="Gelf" level="${gelfLevel}"/>
    <!--appender-ref ref="syslogApp"/-->
</root>
</loggers>

</configuration>

```

- :

```
<Configuration monitorInterval="600">
```

- :

```
<property name="basedir">/var/log/eltex-ems</property>
```

- (,):

```
<property name="maxSize">20 MB</property>
```

- , :

```
<property name="maxCount">20</property>
```

- Graylog (, ,):

```
<property name="gelfHost">udp:lab3-test.eltex.loc</property>
<property name="gelfPort">12201</property>
<property name="gelfLevel">OFF</property>
```

- :

```
<root level="debug">
```

/usr/lib/eltex-ems/conf/system-config.txt

, . GUI EMS:

/usr/lib/eltex-ems/conf/system-config.txt

```
# , MA4000
#Levels: Emergency,Alert,Critical,Error,Warning,Notice,Info,Debug
#Transport: udp, tcp
syslog.defaultIP=192.168.1.1
syslog.defaultPort=514
syslog.defaultTransport=udp
syslog.defaultLevels=Emergency,Alert,Critical,Error,Warning

# server socket and socket handlers pool
gui.port=9310
#gui.handler_pool_size=48
gui.handler_pool_size=200
gui.connection.timeout.sec=300

# snmp
alert.use=yes
alert.port=162
alert.connection_timeout_sec=10

### Monitors
monitor.xml-config=conf/monitors.xml

# (enum) : BY_DOMAIN, BY_ROLE. - BY_ROLE
user_access_type=BY_ROLE
```

- syslog: IP-, , :

```
syslog.defaultIP=192.168.1.1
syslog.defaultPort=514
syslog.defaultTransport=udp
syslog.defaultLevels=Emergency,Alert,Critical,Error,Warning
```

- GUI:

```
gui.port=9310 , GUI ( )
gui.handler_pool_size=200
gui.connection.timeout.sec=300
```

- SNMP (, ,):


```
alert.use=yes
alert.port=162
alert.connection_timeout_sec=10
```

- :

```
monitor.xml-config=conf/monitors.xml
```

- (enum):

```
user_access_type=BY_ROLE
```

/etc/eltex-ems/gui.conf

.

/etc/eltex-ems/gui.conf

```
# GUI: DEBUG, INFO, WARN, SEVERE, ERROR, FATAL
log.level=INFO

# ,
ping.period=10

# ,
socket.timeout=300

# ,
# ,
#socket.port=9310

# Java heap
java.max_heap=700m

# Java heap
java.init_heap=256m
```

- **log.level** - GUI: DEBUG, INFO, WARN, SEVERE, ERROR, FATAL. , windows C:\Users\<UserName>\ems_log\.
- **ping.period** - ,
- **socket.timeout** - .
- **socket.port** - , . () , .
- **java.max_heap** - , .
- **java.init_heap** - , .

/etc/eltex-ems/check-ems-replication.conf

MySQL.

/etc/eltex-ems/check-ems-replication.conf

```
# ( "Yes" ) / ( "No" )
ENABLE_REPLICATION="No"

#
HOST1=192.168.56.100
#
HOST2=192.168.56.101

#      mysql
#      mysql
USER="root"
#      mysql
PASSWORD="root"
```

- **ENABLE_REPLICATION** - . "Yes" - , "No" - .
- **HOST1, HOST2** - .
- **USER, PASSWORD** - MySQL. .

/etc/default/eltex-ems

eltex-ems.

/etc/default/eltex-ems

```
# Eltex.EMS (ACS GUI) Server daemon parameters

# Location of java
JAVA=/usr/bin/java

# Maximum size of Java heap
JAVA_MAX_HEAP_MB=1024
# Initial size of Java heap
JAVA_INIT_HEAP_MB=256

# Options for Java Garbage Collector
GC_OPTS="-XX:+UseG1GC \
-XX:+PrintGCDateStamps \
-XX:+PrintGCDetails \
-XX:+UseGCLogFileRotation \
-XX:NumberOfGCLogFiles=7 \
-XX:GCLogFileSize=5M \
-XX:+UseStringDeduplication \
-XX:+PrintGCTimeStamps \
-XX:+PrintTenuringDistribution \
-Xloggc:/var/log/eltex-ems/gc.log"

# Additional arguments to pass to java
JAVA_OPTS="-XX:+HeapDumpOnOutOfMemoryError \
-XX:HeapDumpPath=/var/log/eltex-ems \
-Djava.security.egd=file:/dev/./urandom"

# Remote monitoring
#JAVA_OPTS="-XX:+HeapDumpOnOutOfMemoryError \
#-XX:HeapDumpPath=/var/log/eltex-ems \
#-Djava.security.egd=file:/dev/./urandom \
#-Dcom.sun.management.jmxremote \
#-Djava.rmi.server.hostname=192.168.1.1 \
#-Dcom.sun.management.jmxremote.port=9900 \
#-Dcom.sun.management.jmxremote.authenticate=false \
#-Dcom.sun.management.jmxremote.ssl=false"

# Eltex.EMS home location
ELTEX_EMS_HOME="/usr/lib/eltex-ems"

# Set it more than (EMS tree objects number * 5)
FILE_LIMIT=65535
```

- **JAVA** - java.
- **JAVA_MAX_HEAP_MB** - , EMS . , OutOfMemory.
- **JAVA_INIT_HEAP_MB** - , EMS.
- **GC_OPTS** - .
- **JAVA_OPTS** - EMS.
- **ELTEX_EMS_HOME** - EMS.
- **FILE_LIMIT** - . 5. 'java.io.IOException: Too many open files'.

/etc/eltex-ems/ssid-default-params.conf

SSID SSID, SSID

/etc/eltex-ems/ssid-default-params.conf

```
#General options
radio=ALL
bandSteering=true
#RADIUS options
activeServer=primary
radiusip=192.168.1.1
radiuskey=eltex
radiusaccount=up
radiusAcctPeriod=600
apBssRadiusPort=1812
#CaptivePortal options
apCaptivePortalExternalUrl=http://192.168.1.1:8080/eltex_portal/
```

, IP	SSID
	SSID
(CheckBox)	true, ; false,
()	<1, , 0>:<>:<>:<>:<>
	(.).



!

,

	ssidtype		: hotspot, enterprise
	NAME		
	DESCR		
Domain	radiusDomain		
SSID	STATUS		: operational, locked
Bridge, Location	bridgeLocation		
Switch Community	switchCommunity		
VAP	status		: down, up
VAP (GRE)	trafficModeVAP		: tunnel, local
Broadcast SSID	broadcastSsid		
Radio	radio		: ALL, ALL24, ALL5
	security		: plainText, wpaPersonal, wpaEnterprise
SSID (GlobalRadius)	validateSsidRadiusAcc		
WPA-TKIP	wpaen		
WPA2-AES	wpa2AesEn		
TLS	tlsEnabled		
Enable pre-authentication	preauth		
MAC Auth Type	macCAuthType		: disable, radius

MFP	mfp		: notrequired, capable, required
(WPA)	wpakey		
Policy	policy		: GLOBAL, ALLOW, BLOCK
MAC	macList		
Broadcast Key Refresh Rate	brcstRfrshRate		
Session Key Refresh Rate	sessionRfrshRate		
Client QoS	qosMode		: off, on
VLAN-ID	vlanid		
QoS method (down link)	priority		: p8021, dscp
VLAN trunk	vlanTrunk		
General Mode	generalMode		
General VLAN-ID	generalVlanId		1 4094
802.1p priority (up link)	vlanPrio		0 7
	stationIsolation		
Band steer	bandSteering		
Support 802.11k	support80211k		
PMKSA caching	pmksaCaching		
Accounting wait IP	accountingWaitIp		
Wireless Multicast Forwarding	wmfEnabled		
Hotspot 2.0	hotspot20		
DiffServ Policy Up	policyUp		
DiffServ Policy Down	policyDown		
Bandwidth Limit Up, kbps	bwMaxUp		0 1331200
Bandwidth Limit Down, kbps	bwMaxDown		0 1331200
Quantity Resend	apBssMaxREeq		
Supplicant Timeout, ms	apBssSuppTimeout		
VAP Limit Up, kbps	vapLimitUp		0 1331200
VAP Limit Down, kbps	vapLimitDown		0 1331200
DPI (Step Logic)	dpiStepLogic		
Minimal Signal			
Enabled	checkMinimalSignal		
Level, dBm	minimalSignalLevel		
Timeout, s	minimalSignalTimeout		
Roaming Level, dBm	roamingSignalLevel		
RADIUS			
Active Server	activeServer		: primary, backupone, backuptwo, backupthree
RADIUS IP Address	radiusip		IP-
RADIUS IP Address-1	radiusip1		IP-
RADIUS IP Address-2	radiusip2		IP-
RADIUS IP Address-3	radiusip3		IP-
RADIUS Key	radiuskey		
RADIUS Key-1	radiuskey1		
RADIUS Key-2	radiuskey2		
RADIUS Key-3	radiuskey3		
RADIUS accounting (/)	radiusaccount		: down, up
RADIUS accounting period, s	radiusAcctPeriod		
RADIUS accounting retry count	apBssRadiusAcctRetryCount		

RADIUS accounting retry timeout	apBssRadiusAcctRetryTimeout		
RADIUS authenticate retry count	apBssRadiusAuthRetryCount		
RADIUS authenticate retry timeout	apBssRadiusAuthRetryTimeout		
RADIUS	apBssRadiusPort		1 65534
Fast Bss Transition			
Fast Transition	apFbtEnabled		: off, on
FT over DS	apFbtOverDSEnabled		: off, on
R0 Key Holder	apFbtR0KeyHolderID		
Reassociation Deadline, ms	apFbtReassociationDeadline		1000 4294967295
RRB key	apFbtRrbKey		
Captive portal			
Enabled	apCaptivePortalAdminMode		
Virtual portal name	apCaptivePortalVirtualPortalName		EMS
	apCaptivePortalTinyproxyTransportMode		: HTTPS, HTTP, Auto
Verification	apCaptivePortalVerifyMode		: Guest, RADIUS, CaptivePortal
External	apCaptivePortalExternalMode		
External URL	apCaptivePortalExternalUrl		
Away Time, min	apCaptivePortalAwayTime		0 1440
Session Timeout, min	apCaptivePortalSessionTimeout		0 1440
User mobility domain (FW 1.9.0)	apCaptivePortalUserMobilityDomain		
	scheduler		
	monday		
	tuesday		
	wednesday		
	thursday		
	friday		
	saturday		
	sunday		

/etc/hosts

```
ip .

127.0.0.1 localhost
127.0.1.1 ubuntu
```

- 127.0.0.1 localhost - 127.0.0.0/8.
- 127.0.1.1 <> - , hostname. ip- .

GUI EMS

- ;
- ;
- ;
- ();
- ;
- ;
- (Info);
- (Warning);
- (Minor);
- (Major);
- (Critical).

, «SuperUser». . .

, . . .

« ». «/ /». , («SuperUser» «NorthBound»), .

Список ролей

Administrator
guest
Northbound
Operator
SuperUser
test
test1

Добавить

Удалить

Редактировать

Сохранить

Отменить

Копировать

Настройка ролей пользователей

Параметры

Имя роли: Administrator
Описание: pon/ma4000 administrators
Домен: root
Время бездействия (сек): 0

Разрешённые действия

Редактировать привилегии (0 изменений)

Регистрация на аварии

☐ Информационные (Info)

☐ Предупреждения (warning)

☐ Не важные (Minor)

☐ Важные (Major)

☐ Критические (Critical)

EMS

Servers

building-1

building-2

test

test_1

Закреть

- , , , . «0».

Добавить роль

Имя:

Имя новой роли

Описание:

Описание новой роли


Домен:

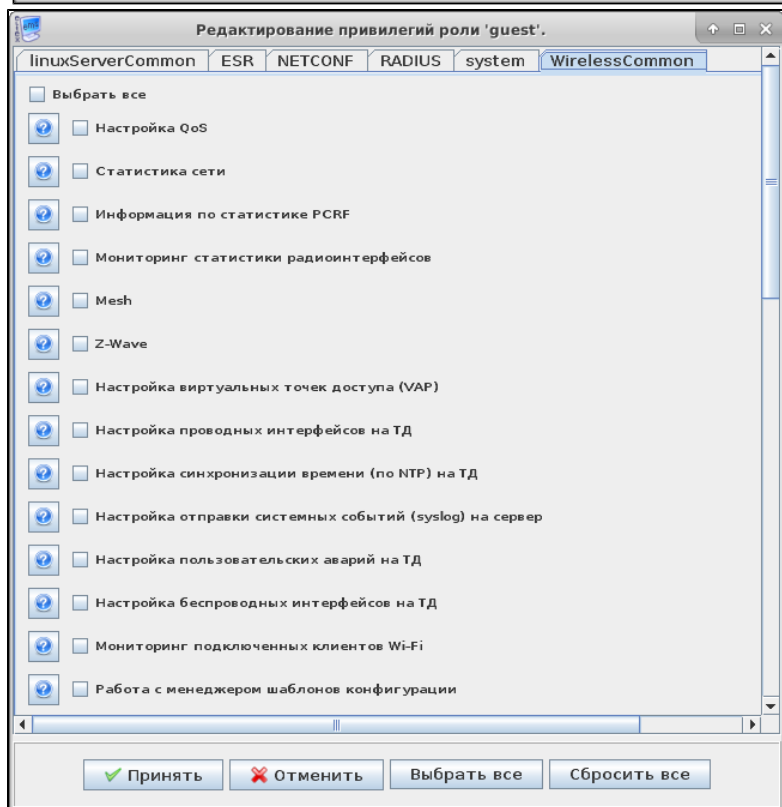
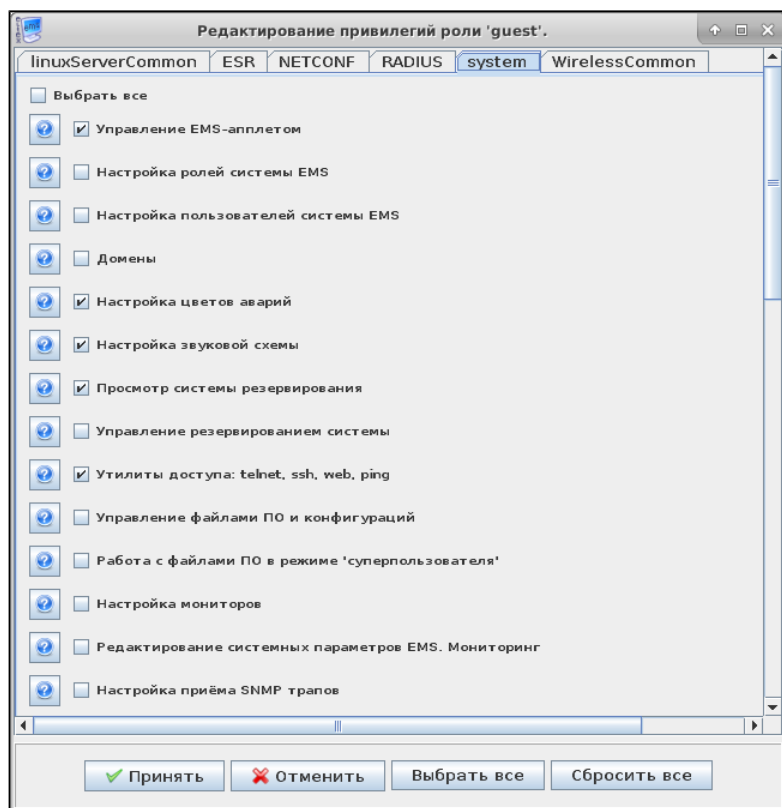
Время бездействия:

0

Добавить

Отменить

, , « ». . «system». wireless «Wireless Common». , ().



« » , , (E-mail).

, , . " " " " .

« » . «RootNode».

Список ролей

Administrator

Список пользователей

esr_team (Administrator)

test (Administrator)

Добавить

Удалить

Редактировать

Заккрыть

Имя:

admin

Описание:

admin

Роль:

SuperUser

Дата:

12-12-2099

E-mail:

Пересылать аварии на Email:

Нет

Пересылать логи на Email:

Нет

Режим 'multiuser':

,,*

Блокировка:

Пользователь разблокирован

Список ролей

Administrator

Bce

Administrator

guest

Northbound

Operator

SuperUser

test

test1

Добавить

Удалить

Редактировать

Заккрыть

Имя:

admin

Описание:

admin

Роль:

SuperUser

Дата:

12-12-2099

E-mail:

Пересылать аварии на Email:

Нет

Пересылать логи на Email:

Нет

Режим 'multiuser':

,,*

Блокировка:

Пользователь разблокирован

","("), (), ", . , .

« / », «admin»

Добавить пользователя ✕

Имя:

Описание:

Роль:

Пароль: ☒ Изменить

Подтверждение:

Дата:

E-mail:

Пересылать аварии на Email: ☐

Пересылать архив логов на Email: ☐

Пересылать проблемы ONT на Email: ☐

Блокировка: ☐

Режим 'multiuser': ☐ ?

- — 32 ;
- — 64 ;
- — ;
- — ;
- — ;
- — ;
- — ;
- E-mail — ;
- e-mail — , — (E-mail system, //);
- e-mail — , — (.4);
- ONT e-mail — , — (.4);
- — ;
- Multiuser — , IP- (GUI). «»(192.168.0. 192.168.0.0/24). : ... A..* A.B.. A.B.C.*. — 255. IP-, .

Режим 'multiuser': ☒ ?

Список допустимых ip адресов

- ✓ , , .
- ! , .
- ✓ «» «» , . (), «». , , . , «admin» - .
- ✓ . .

— , , SoftWLC.

() . , , , SoftWLC, , . , , .

Список доменов

Поиск:

Домен	Описание	Макс. пользователе...	Тип домена	Регион	Часовой пояс	Внешний идентифи...	Название компании	...
root	-	-	both	24	Asia/Novosibirsk			
Cluster	-	-	both	-	(+07:00) Asia/Novosi...			
ESRLAB	-	-	both	-	-			
INTEROP	-	-	both	60	(+00:00) Africa/Accra			
LOADSTEND	-	-	both	-	-			
OTT	-	-	both	-	-			

Закреть

SSID , Wi-Fi , SSID (,). :

- 'ap' - , .
- 'service' - SSID, , .
- 'both' - , , .

, , . , 'both'.

Wi-Fi

, . .

.


. . , . , , .

. , . , .

, , . , .

, Asia/Novosibirsk, Europe/Moscow.

"Etc" , : GMT , -. Etc/GTM-7 UTC+7 (GMT+7) Asia/Novosibirsk

 , () , (eltex-bob).

/

.

, .



. .

Добавить

Домен	★	<input type="text"/>
Описание		<input type="text"/>
Макс. пользователей Wi-Fi		<input type="text"/>
Тип домена		---
Регион		<input type="text"/>
Часовой пояс		---

Принять

Отменить

Редактировать

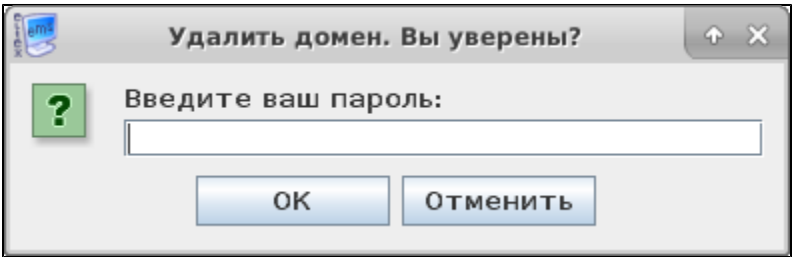
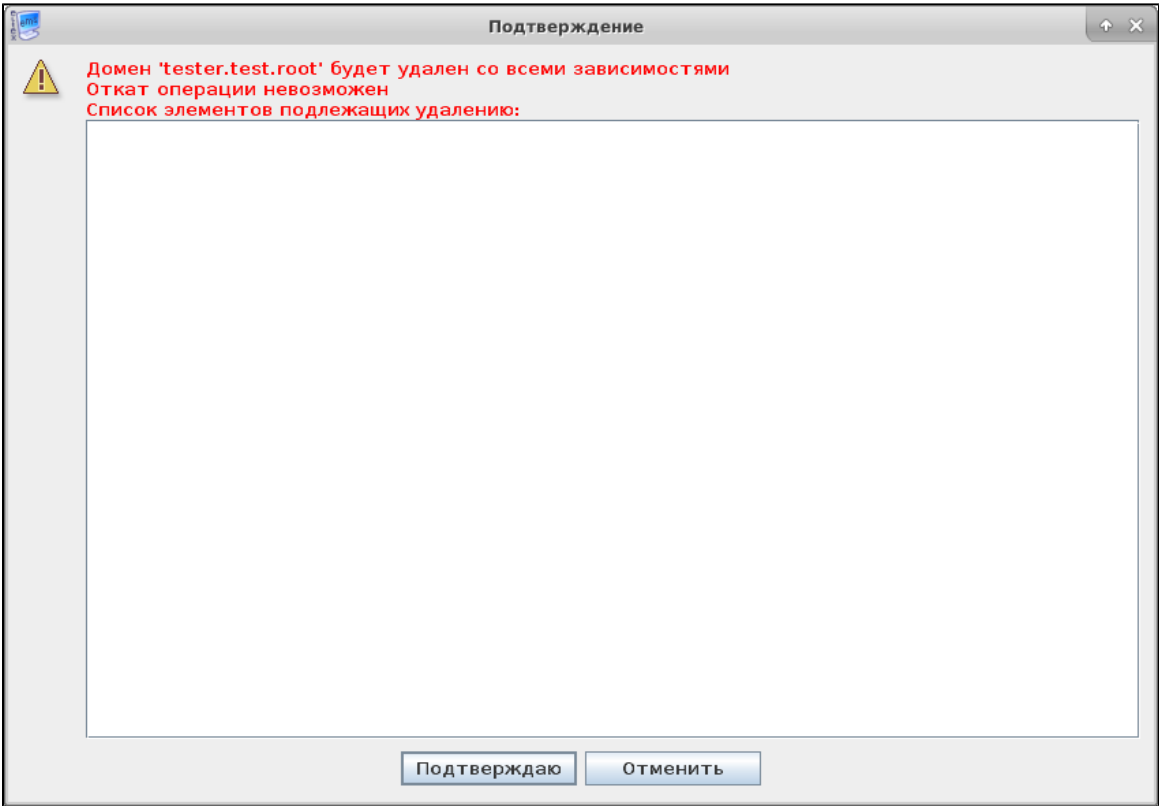
Наименование	★	<input type="text" value="root"/>
Описание		<input type="text"/>
Макс. пользователей Wi-Fi		<input type="text"/>
Тип домена		both
Регион		<input type="text" value="54"/>
Часовой пояс		(+07:00) Asia/Novosibirsk


Принять

Отменить

SuperUser. , , , .

, , - , , (SSID, , ,) .



SSID,  ESR/BRAS.
, data- ., SSID ESR BRAS .
'ap' 'both', , .

- :
- Average upstream bandwidth, kbps -
 - Peak upstream bandwidth, kbps -
 - Average downstream bandwidth, kbps -
 - Peak downstream bandwidth, kbps -

Shaper для of1.ESRAP1.LOADSTEND.root:

Shaper для of1.ESRAP1.LOADSTEND.root:

Average upstream bandwidth, kbps

106000

Peak upstream bandwidth, kbps

106000

Average downstream bandwidth, kbps

106000

Peak downstream bandwidth, kbps

106000

SSID Shaper:

Экспорт

SSID	Average upstream ba...	Peak upstream band...	Average downstream ...	Peak downstream ba...
ESRAP1_of1	3001	25000	18000	30000
ESRAP1_of1_ssid13	5000	30000	7000	30000
ESRAP1_of1_ssid14	1000	50000	5000	30001

Принять

Отменить

Очистить все



Суммарный Shaper для of1.ESRAP1.LOADSTEND.root:

Shaper для of1.ESRAP1.LOADSTEND.root:

Average upstream bandwidth, kbps

106000

Peak upstream bandwidth, kbps

106000

Average downstream bandwidth, kbps

106000

Peak downstream bandwidth, kbps

106000

SSID Shapers:

Экспорт

SSID	Average up...	Peak upstr...	Average do...	Peak down...	VLAN ID	VLAN priority	Bridge, Loc...	Switch Com...
ESRAP1_of1	3001	25000	18000	30000	12	7	APUSER1	<input checked="" type="checkbox"/>
ESRAP1_of1_...	5000	30000	7000	30000	13	6	APUSER2	<input type="checkbox"/>
ESRAP1_of1_...	1000	50000	5000	30001	14	3	APUSER1	<input type="checkbox"/>

Закреть

SNMP

SNMP-

Настройка приема сообщений (snmp traps)

OID:

Устройство:

Перенос:

И-аггв:

Изменить поля

Обновить

Редактировать

Сброс

Черный список

Oid	Имя	Описание	Устройство	Disabled	Priority	Always closed	Не хранить в...	Пересылать ...	Черный спис...
1.2.840.10036...	dot11SelecteD...	WP: Change cha...	WOP: WEP	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.1.3.6.1.4.1...	emsRsyncError	System backup: ...	ALL	<input type="checkbox"/>	CRITICAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.118...	ALARM-MIB: alar...	ALARMMIB: alar...	SSW	<input type="checkbox"/>	MAJOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.118...	ALARM-MIB: alar...	ALARMMIB: alar...	SSW	<input type="checkbox"/>	CLEAR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtIfStateC...	OSPF: Change in...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtRetransmit	OSPF: OSPF pac...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtIfvRetra...	OSPF: OSPF pac...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfOriginateLsa	OSPF: New LSA ...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfMaxAgeLsa	OSPF: One of th...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfLsdbOverflow	OSPF: Number o...	MES	<input type="checkbox"/>	WARNING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfLsdbApproa...	OSPF: Number o...	MES	<input type="checkbox"/>	WARNING	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfIfStateChan...	OSPF: Change in...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfHbrStateCh...	OSPF: Change in...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtHbrStat...	OSPF: Change in...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfIfConfigError	OSPF: Packet ha...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtIfConfigE...	OSPF: Packet ha...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfIfAuthFailure	OSPF: Packet ha...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtIfAuthFai...	OSPF: Packet ha...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfIfRbadPacket	OSPF: OSPF pac...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.14.1...	ospfVirtIfRbadP...	OSPF: OSPF pac...	MES	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.2.1.47.2...	entConfigChange	ESR: Конфигур...	ESR	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1.3.6.1.4.1.18.2	TopGATEalarm	TopGATE: Авария	TopGATE	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Закрыть

«»

SNMP.

Редактирование объекта

Oid

Имя

Описание

Устройство

Disabled

Priority

Always closed

Не хранить в БД

Пересылать в TL1

1.2.840.10036.12.0.1

dot11SelectedChannelNotification

WP: Change channel

[WOP, WEP]

☐

INFO

☐

☐

☐

Принять

Отменить

:

- *Disabled*– (– e-mail, , ..);
- *Priority*– ();
- *Always closed*– «» (, ,);
- – () , (, ,).

«»

.

« » , («Disabled»). «ALL», «EMS_SERVER» «KEEPALIVED» , .

()

Мониторы

Редактировать	Дополнительно	Черный список	Белый список	Обновить	Изменить поля	Справка	Экспорт	H-scroll				
ID	Тип запуска	Имя монитора ^	Лог-файл	Срок-период	Запусков	OK	Error	Событий	Текущее состояние	Следующий старт	Запустить	П
13	MANUAL	Архивация и рассылка лог-ф...	logsdir_sender		0	0	0	0	0 FREE		▶	
5	MANUAL	Выгрузка конфигураций	upload_configure		0	0	0	0	0 FREE		▶	
8	PERIOD_AND_S...	Диагностика сервера EMS	ems_server_dia...	0 10 0/1 **?	165	165	0	0	0 FREE	2019-05-13 10:10:00	▶	
14	PERIOD	Диагностика системы резер...	system_backup...	0 0/5 **?	1971	1971	0	0	0 FREE	2019-05-13 09:30:00	▶	
1	PERIOD	Контроль размеров пулов си...	handlers_pool	0 24 0/1 **?	165	165	0	0	0 FREE	2019-05-13 10:24:00	▶	
501	PERIOD	Контроль соответствия сос...	nas_treeobj_fit...	0 0 12 **?	6	6	0	0	0 FREE	2019-05-13 12:00:00	▶	
12	MANUAL	Контроль температуры	temperature_s...		0	0	0	0	0 FREE		▶	
605	PERIOD	Монитор для отправки увед...	ssid_pwd_chan...	0 0 3 **?	7	7	0	0	0 FREE	2019-05-14 03:00:00	▶	
602	PERIOD	Опрос списка конкурентных ...	wifi_alien_monit...	0 0/10 **?	986	986	0	0	0 FREE	2019-05-13 09:30:00	▶	
15	PERIOD	Отправка уведомлений по Е...	account_expire	0 0 1 **?	7	7	0	0	0 FREE	2019-05-14 01:00:00	▶	
9	PERIOD	Очистка базы syslog сервера	syslog_clean	0 0/30 **?	328	328	0	0	0 FREE	2019-05-13 09:30:00	▶	
600	PERIOD	Проверка и исправление SSL...	ssid_link_check	0 0 0 **?	7	7	0	0	0 FREE	2019-05-14 00:00:00	▶	
603	PERIOD	Проверка массовых обрывов ...	wifi_loss_comm...	0 0/10 **?	985	985	0	0	0 FREE	2019-05-13 09:30:00	▶	
400	PERIOD	Проверка портальных SSID`о...	ssid_apb_check	0 0 0/1 **?	164	164	0	1781	0 FREE	2019-05-13 10:00:00	▶	
601	MANUAL	Проверка расписания работ...	ssid_scheduler		0	0	0	0	0 FREE		▶	
10	PERIOD_AND_S...	Проверка соединения с БД	check_db	0 0/10 **?	986	986	0	0	0 FREE	2019-05-13 09:30:00	▶	
500	MANUAL	Резервное копирование БД ...	radius_backup		0	0	0	0	0 FREE		▶	
6	MANUAL	Резервное копирование СУ	system_backup		0	0	0	0	0 FREE		▶	
2	MANUAL	Синхронизация событий	alerts_sync		0	0	0	0	0 FREE		▶	
7	PERIOD	Синхронизация устройств	sync_pon	0 0/20 **?	493	493	0	0	0 FREE	2019-05-13 09:40:00	▶	
604	PERIOD	Сканирование OTT default до...	ott_overdue	0 0 10 **?	6	6	0	0	0 FREE	2019-05-13 10:00:00	▶	
4	MANUAL	Сканирование версий ПО	fw_reports		0	0	0	0	0 FREE		▶	
11	PERIOD	Удаление старых лог-файлов	logsdir_clean	0 0 5 **?	7	7	0	0	0 FREE	2019-05-14 05:00:00	▶	
3	PERIOD	Экспорт журнала сообщений	alerts_archiving	0 0 4 **?	7	7	0	0	0 FREE	2019-05-14 04:00:00	▶	

Закрыть

v1.18_

, EMS.

pcrf

passwordGenerator

pcrf

plc8

ponCommon

Действия

Сбросить

Сбросить все

Включен ☒

URL

Таймаут соединения, с

Таймаут чтения/записи, с

Принять

Отменить

eltex-pcrf. :

- - /.
- URL - eltex-pcrf.
- - eltex-pcrf.
- / - eltex-pcrf.

radius

ponCommon
portal
radius
sbc
smg

Действия
Сбросить
Сбросить все

Имя службы RADIUS

'Secret' для localhost

IP-адрес хоста EMS в качестве RADIUS-клиента

Таймаут перезапуска, сек

Мин. интервал перезапуска, сек

eltex-radius

eltex

127.0.0.1

45

60

Принять

Отменить

RADIUS. RADIUS NAS.

- RADIUS - .
- "Secret" localhost - , EMS RADIUS.
- IP EMS RADIUS- - EMS , RADIUS-.
- - RADIUS .
- . . .

softwlc.nbi

☒

http://localhost:8080/axis2/services/RadiusNbiService?wsdl

softwlc_service

softwlc

ения, с 30

а, с 120

Принять

Отменить

SoftWLC.NBI.

- - / .
- URL - WSDL .
- - SoftWLC.NBI.
- - SoftWLC.NBI.
- - .
- - .

system

EMS.

	, .
	. "".
IP EMS	IP-, EMS .
	, EMS.
Tomcat URL	URL- EMS . HTTP.
TOMCAT URL	URL- EMS с . HTTP.

	, EMS , .
	, , , , .
	EMS (). : DEBUG, INFO, WARN, SEVERE, ERROR, FATAL
	.
SNMP ''	.
SNMP	.
Syslog	(SNMP trap) Syslog.
	. False, .
	.
"	, .
ICMP/SNMP	/ .
(ICMP, SNMP ping)	. , .
ping-	ping- , .
1 ping- fping	1 ping- , .
	, .
ICMP, SNMP	, EMS. .
GUI "	.
	, (", "), .
	, .
,	, .
ACS.GUI	ACS.
	, , .
HTTP	HTTP.
	. . .
	hostname . hostname .
	, ().
	, , , , .
	.
	.
	.

	.
IP	IP- .
	.

(GUI)

	.
""	.
""	.
	, , " " .
	.
" "	" " .
	, .
(RRD) / RRD.	
	.
	.

	.
EMS	EMS.
	trap/inform.
	IP- , EMS.
	, ".
informv2	, .
informv2	.
OID,	.
OID,	.
	.
SNMP trap community	.
	DEBUG, INFO, WARN, SEVERE, ERROR, FATAL.

SMTP.

	.
	IP- SMTP-.
	, SMT-.
	SMTP-.
	SMTP-.
	, (, STARTTLS, SSL TLS).
	SMTP-.
	, .

()	mail . .
EMail	, .

airtune

GenericAp
airtune
apb
dhcp
esr

Действия
Сбросить
Сбросить все

Protocol

http

Host

localhost

Port

8089

Connection Timeout, s

300

Request Timeout, s

5

Принять

Отменить

- AirTune:
- Protocol- ;
 - Host- IP-, ;
 - Port- , ;
 - Connection Timeout, s - , ;
 - Request Timeout, s- , .

tftpserver

для стационарных устройств

192.168.1.1

встроенного TFTP)

69

каталог службы

/tftpboot

ор firmware файлов станционного ПО

station_images

ор boot файлов станционного ПО

uboot_images

ор файлов конфигураций

ems

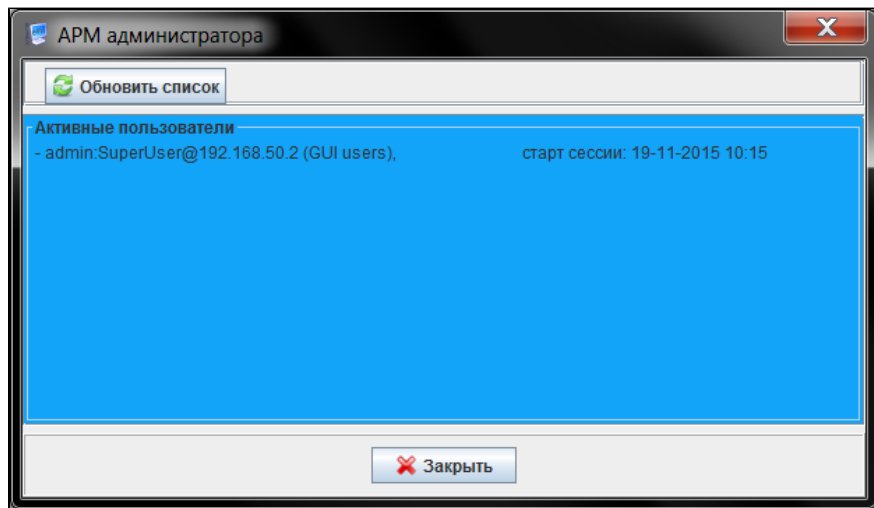
Принять

Отменить

- TFTP-:
- IP - , ;
 - (TFTP)- (EMS) TFTP , 1..65535 (69);
 - - tftpd;
 - firmeare/boot - ();
 - - , / .

wirelessCommon

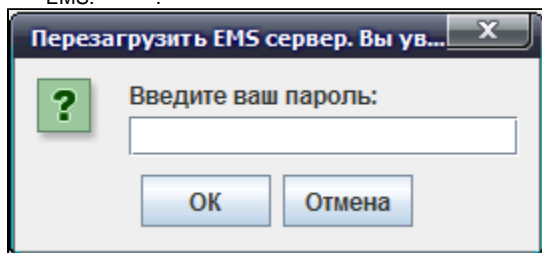
	.
IP DHCP	IP DHCP , , .
	, . IP- .
	.
	, .
SSID WDS	,.. SSID WDS .
SSID	SSID SSID, SSID. SSID , VAP , SSID,
	.
uplink	, eth0 . ''- , .
AssociateClients, .	.
WPA2 Personal VAP, RADIUS accounting	WPA2 Personal VAP, RADIUS accounting. .
, .	.
/ SSID	/ SSID.
	.
URL	URL .
Secret POST	.
Timeout ,	, .
	HTTPS .
SSID	
SSID	.
E-mail	.



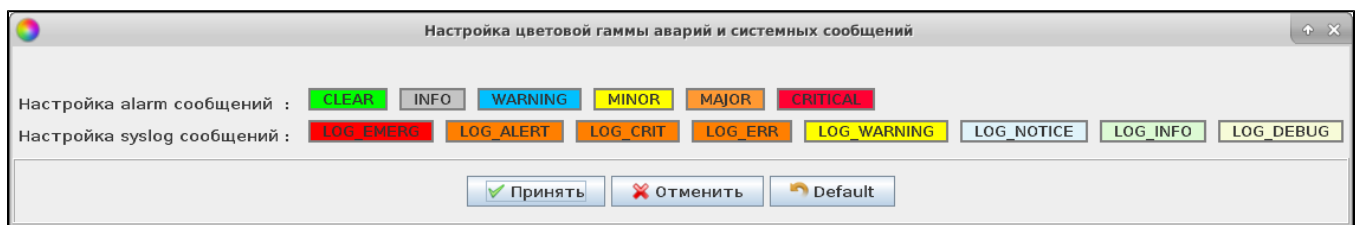
« », « ».

EMS

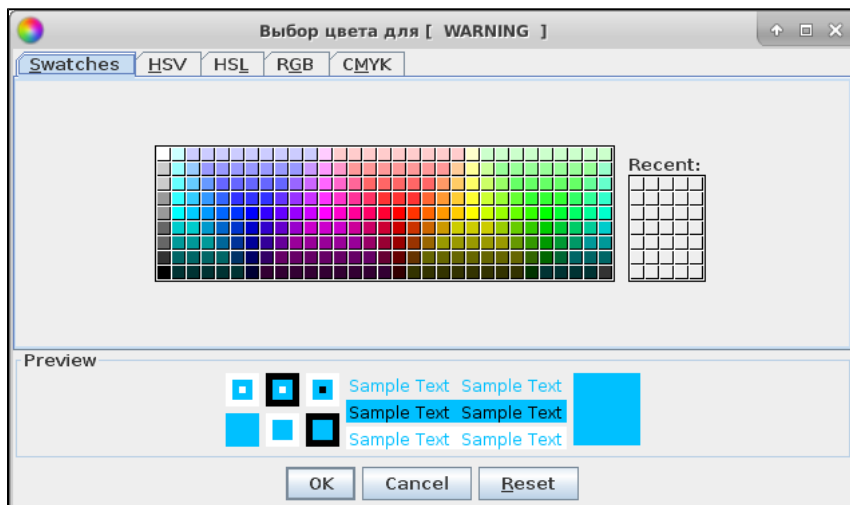
EMS.



« / / ».



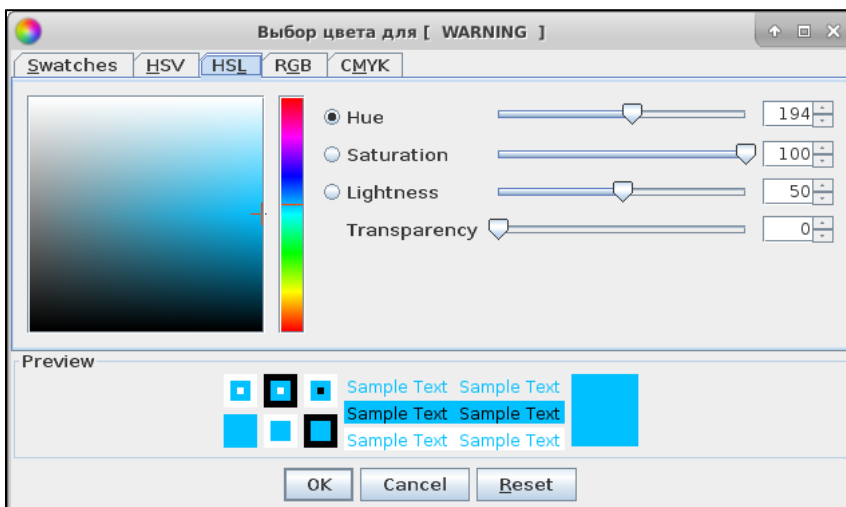
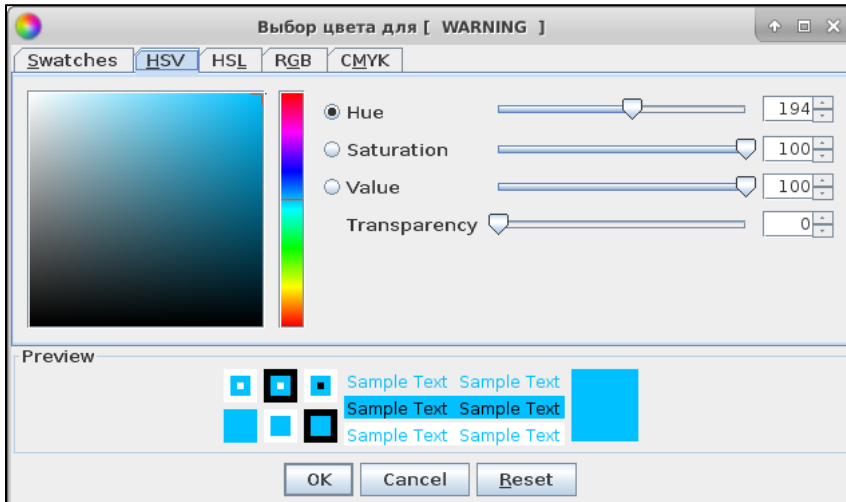
, .
, .



(Preview) – .

Swatches
Swatches – . , .

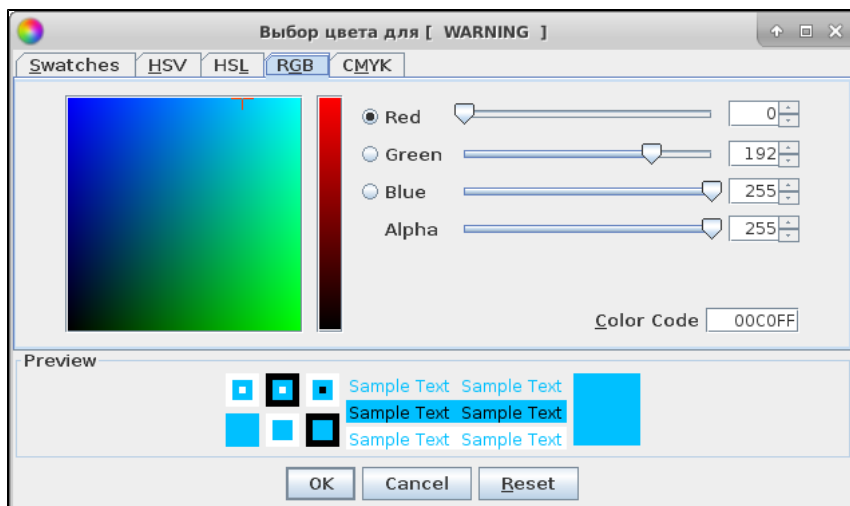
HSV HSL



HSV (HSB) HSL- (), (HSL -).

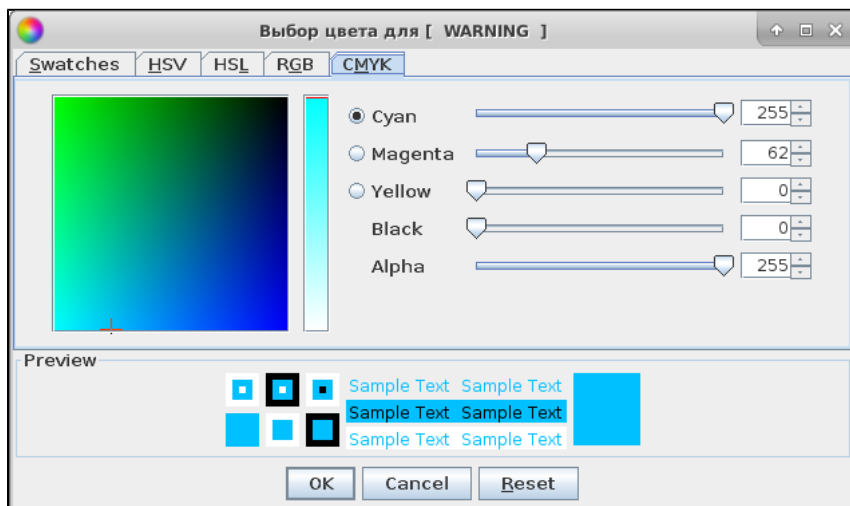
- Hue — . 0—360.
- Saturation — . 0—100. , «» , , .
- Lightness — (). 0—100.
- Value — . 0—100.
- Transparency — . 0—100.

RGB



RGB– , . – , , .

CMYK



CMYK– , . CMYK RGB .

«», – «Cancel». «Reset» .

«», – «», «Default» , .

«/ / ».

Настройка звуковой схемы аварий

Уровень аварии : звук

Внимание <WARNING>

:

Выключен

Низкий <MINOR>

:

Выключен

Высокий <MAJOR>

:

Выключен

Критический <CRITICAL>

:

Выключен

Принять

Отменить

Default

Beep

«», – «». «Default» , .

/boot

Станционное ПО

Загрузить

Удалить

Обновить

Экспорт

H-scroll

Изменить поля

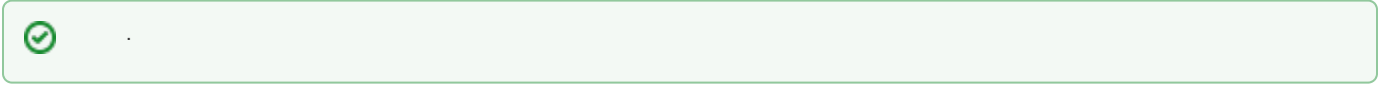
Фильтр:

id	Тип устройства	Файл	Размер	Версия	Описание	Проверить	Актуальный	Контроль
414	WEP-2ac-Z	WEP-2ac-1.18.0.55.tar.gz	26493411	1.18.0.55	Загрузка файла ...	тест		OK
413	WEP-2ac	WEP-2ac-1.18.0.55.tar.gz	26493411	1.18.0.55	Загрузка файла ...	тест		OK
412	WEP-12ac-RevC	WEP-12ac-revC-1.18.0.55.tar.gz	27640756	1.18.0.55	Загрузка файла ...	тест		OK
411	WEP-2ac-Smart	WEP-2ac-1.18.0.55.tar.gz	26493411	1.18.0.55	Загрузка файла ...	тест		OK
410	WEP-2ac-Smart	WEP-2ac-1.17.0.3255.tar.gz	26457075	1.17.0.3255	Загрузка файла ...	тест		OK
409	WEP-2ac	WEP-2ac-1.17.0.3255.tar.gz	26457075	1.17.0.3255	Загрузка файла ...	тест		OK
408	WEP-12ac-RevC	WEP-12ac-revC-1.18.0.51.tar.gz	27652242	1.18.0.51	Загрузка файла ...	тест		OK
407	WEP-12ac	WEP-12ac-1.18.0.51.tar.gz	27690676	1.18.0.51	Загрузка файла ...	тест		OK

Заккрыть

EMS

«»



Станционное ПО

Тип: Все

Все

IP:

Тип информации: Все

Версия ПО:

Инициатор:

Дата:

Кол-во записей: 25

Очистить

Изменить поля

Обновить

Выделить все

Экспорт

Сохранить

ID	Тип устр...	Полный т...	Имя устр...	IP адрес	Инфо	Серийны...	Версия ПО	Дата	Инициатор	Тип инфо...	Тип иниц...	Путь
81	WEP	WEP-2ac-S...	WEP-2ac_S...	192.168.44...		WP19001970	1.16.0.2646	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
80	WEP	WEP-2ac-S...	WEP-2ac_S...	192.168.40...		WP19001971	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
79	WEP	WEP-2ac-Z	WEP-2ac-Z	192.168.44...		WP2C000054	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
78	WEP	WEP-2ac	WEP-2ac	192.168.44...		WP12000907	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
77	WEP	WEP-2ac-S...	WEP-53	192.168.40...		WP19000500	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
76	WEP	WEP-2ac	WEP-2ac	192.168.40...		WP12009408	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...
75	WEP	WEP-2ac	WEP-2ac	192.168.40...		WP12001621	1.15.0.111	09.11.2018...	Сканирова...	READ	MONITOR	/EMS/buildi...

Заккрыть

, (). "FW",, , . FW . ""=READ.

:

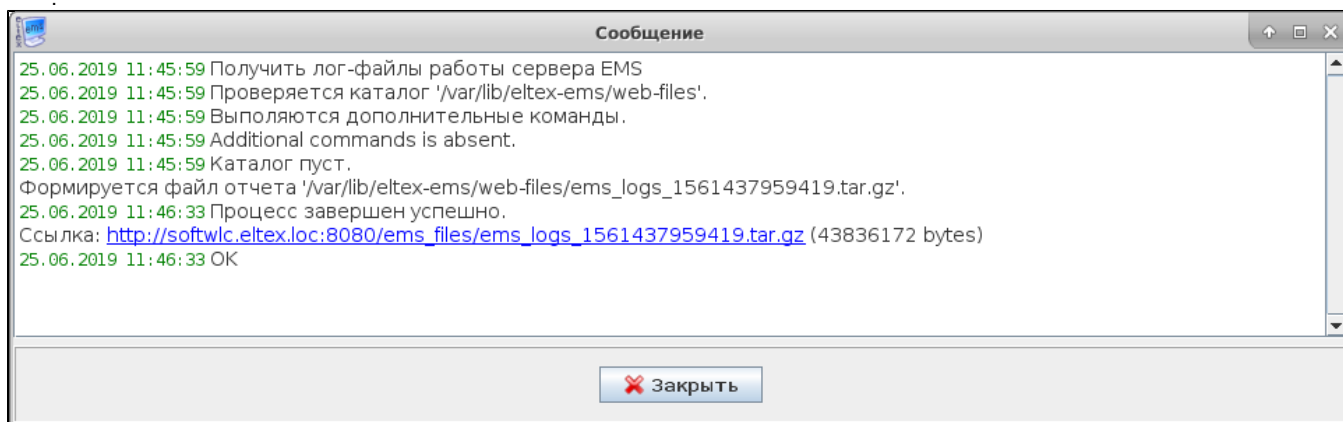
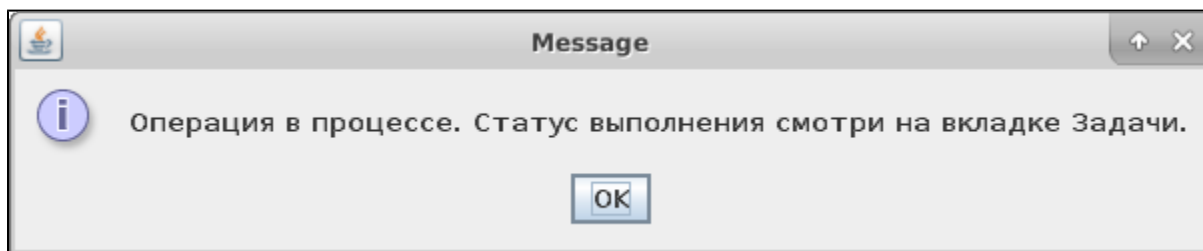
- - ;
- - , ;
- /P- IP- ;
- - /UNKNOWN/UPLOAD/READ;
- - ;
- :/-;
- .

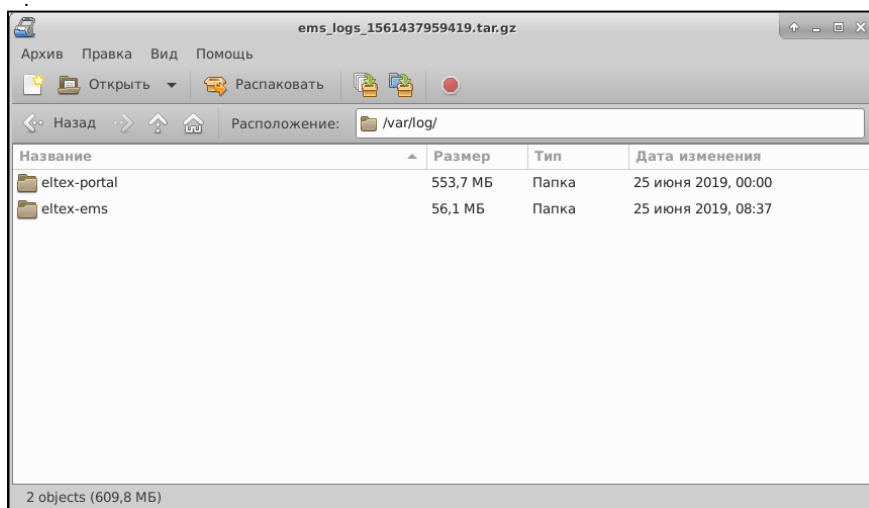
« » , .
« ».

EMS

EMS, captive portal:

- /var/log/eltex-portal/debug_ep.txt
- /var/log/eltex-portal/error_ep.txt
- /var/log/eltex-portal/sms_ep.txt
- /var/log/eltex-ems/black_box.txt
- /var/log/eltex-ems/ems_error.txt





, , ,

EMS :

- SNMP trap, ;
- SNMP trap EMS (, Keepalived);
- , , EMS (, - ping,) ;
- EMS (,), « » .

:

- ();
- (ONT, Wi-Fi).

MySQL.

(..) GUI (.).

«/» .

EMS «/», EMS.

().



SoftWLC TrapRules.xml .

, , GUI («/ / SNMP») . , TrapRules.xml.

Настройка приёма сообщений (snmp traps)

Источники:

Перенос

H-scroll

Сброс

Черный список

Свойство	Disabled	Priority	Always closed	Не хранить ...	Пересылать...	Time to live ...	Черный спи...
WEP	<input type="checkbox"/>	INFO	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	
	<input type="checkbox"/>	CRITICAL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	
	<input type="checkbox"/>	MAJOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	0	

Редактирование объекта

1.2.840.10036.12.0.1

dot11SelectedChannelNotification

WP: Change channel

[WOP, WEP]

☐

INFO

☐

☐

☐

0

Принять

Отменить

Заккрыть

«OID»
«»
«ALL»,
«KEEPALIVED»
«EMS_SERVER» EMS.
(«») :

- Disabled– «true» - (,);
- Priority– ; EMS;
- Always closed– « » - «true» , « ».
- – «true» , EMS.

«»,
«» , TrapRules.xml.
«» , , «» «».

, (, cron)

« (alerts_archiving)».
().
«enable_export», csv-.

GUI: (,)

SoftWLC «/ »:

- – (syslog) (13.1);
- – (13.2).

, «». INFO CLEAR «» , .

- – , ;
- – , .

, , .

(OID,)

, INFO, « ».
(, OID1, 3), « » MAJOR.
NormalizesOID EMS OID1 « ». EMS . (« ») CLEAR, , 3 . , ().

(log)

« »- EMS, . « » - , .
« » , GUI .
« » .
« » : () (), ().
« » . « » GUI , . , . () « » « ».
« » () , , .
« » .
« » - .
« » , . « » « ».
« » . « » . : , , , .

« » , , , .
«/ » .

: () ()

- « » .
:
- - GUI . . csv. (MS Office Excel, OpenOffice Calc).
 - - csv. . , , . MySQL . « » (,). . .

Syslog

«Syslog» syslog- .
rsyslog, , **rsyslog-mysql**, .
Syslog , .
.

EMS « ».
(«/») system « (ICMP, SNMP ping)».
ICMP SNMP SNMP-.
SNMP GET OID 1.3.6.1.2.1.1.3.0 (SNMPv2-MIB::sysUpTime.0).
«/ICMP», «SNMP» .
« » - « ».
(LTP, MA4000, WEP, WOP). SNMP system « SNMP».

GUI «/ » .
Keepalived GUI «/ ».

Состояние системы резервирования

Servers

Изменить поля

Обновить

Редактировать

Статистика

Общие

Выключить

Включить

Virtu...	Type	Address	Status	Weight	RouterID	Action
1	Virtual	192.168.26.203:30333	alive	0	EMS_26_202	
1	Real 1	192.168.26.201:30333	alive	1		
1	Real 2	192.168.26.202:30333	alive	1		

Закреть

Keepalived global

Version

Keepalived v1.2.15 (02/04,2015)

Router ID

EMS_26_202

SMTP Server Address

0.0.0.0

E-mail From

eltex.ems@eltex.loc

E-mail Address 1

victor.abarenov@eltex.loc

Trap Enable

on

Link Beat

netlink

Заккрыть

«» :

- *Version* - Keepalived;
- *Router ID* - , IP- (*RouterID*). Router ID keepalived.conf, IP-;
- e-mail
- SNMP-trap;
- .

«» .

Состояние системы резервирования

Servers

Изменить поля

Обновить

Редактировать

Статистика

Общие

Выключить

Включить

VirtualSer...	Type	Address	Status	Weight	RouterID	Action
1	Virtual	192.168.26.203:30333	alive	0	EMS_26_202	
1	Real 1	192.168.26.201:30333	alive	1		
1	Real 2	192.168.26.202:30333	alive	1		

Ошибка

Ошибка выполнения команды: /usr/bin/expect /usr/lib/eltex-ems/scripts/switch-remote-ems.sh 192.168.26.201 disable: exit value '1'

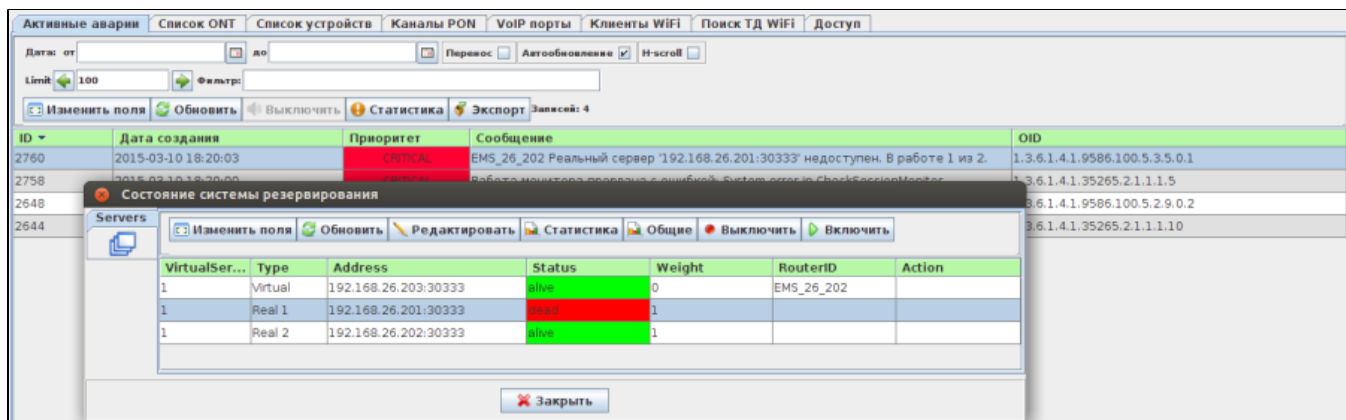
OK

:

- *VirtualServerIndex* - ;
- *Type* - (N);
- *Address* - IP- / ;
- *Status* - / (alive dead);
- *Weight* - ;
- *Router ID* - , IP- ();
- *Action* - .

«»/«» eltex-ems .

/usr/lib/eltex-ems/scripts/switch-remote-ems.sh.
 switch-remote-ems.sh SSH (login, password).
 ;
 (, -) GUI .



- , . SNMP- .

« » :

- ;
- master ().

: mysql, rsync, keepalived .

:

- ;
- eltex-ems;
- tomcat6;
- ;
- EMS GUI.

, (, , .).

:

- Master- ;
- (,);
- IP-;
- Master- Master ;
- , eltex-ems (, , ,), () ;
- .

:

- ifconfig vip;
- MySQL ;
- SoftWLC GUI , vip, ;
- mc , .

(watchdog)

SoftWLC . (GUI) . (Server) (). , (, . Watchdog). , , , , eltex-ems, - WEB- tomcat6. , : *http web service*. eltex-ems , , DHCP- (dhcpd-eltex), OLT, . , Linux cron. :

```
/usr/lib/eltex-ems/scripts/check_ems_srv.sh
```

cron :

```
/etc/cron.d/ems-backup
```

:

```
*/5 * * * * root /usr/lib/eltex-ems/scripts/check_ems_srv.sh
```

```

:
• cron    5;
• .       10;
• .       tomcat6 eltex-ems tomcat6.

```

```
, eltex-ems ( ), WEB- tomcat6, :
```

1. GUI- ;
2. (http web service);
3. Northbound SOAP/XML.

```

:
/var/log/eltex-ems/check/ems-check.<current-date>.txt
:

```

```

----- (START) -----
14-06-2017      15:45:01: System information:
14-06-2017      15:45:01: Linux ubuntu 4.4.0-78-generic #99~14.04.2-Ubuntu SMP Thu Apr 27 18:49:46 UTC 2017
x86_64 x86_64 x86_64 GNU/Linux
14-06-2017      15:45:01: java version "1.8.0_131"
Java(TM) SE Runtime Environment (build 1.8.0_131-b11)
Java HotSpot(TM) 64-Bit Server VM (build 25.131-b11, mixed mode)
14-06-2017      15:45:01: LoadAverage info
14-06-2017      15:45:01: 1min 5min 15min
14-06-2017      15:45:01: 0.01 0.04 0.03 1/571 4244
14-06-2017      15:45:01: RAM MemFree: 91596 kB
Disk info
Disk           Size      Used      Available      Used %      Mount
/dev/sda1      15G       11G       3,1G          79%         /
14-06-2017      15:45:01: EMS status: Eltex.EMS Server is running with pid 30258
14-06-2017      15:45:01: Tomcat status: * Tomcat servlet engine is running with pid 30891
14-06-2017      15:45:01: ports (9310, 9340, 8080) status:
tcp6           0 0 :::9310 :::* LISTEN 30260/java
tcp            0 1 192.168.15.106:33608 192.168.26.201:8080 SYN_SENT 4216/curl
tcp6           0 0 :::8080 :::* LISTEN 30891/java
14-06-2017: Northbound is working
14-06-2017: EMS and Northbound are working

```

```

, SoftWLC ( ).
, : , , , , , ,
, eltex-ems :

```

```
sudo service eltex-ems stop
```

```

:

```

```
EMS service disabled. No checks will be performed.
```

```
:
```

```
sudo /usr/lib/eltex-ems/scripts/check_ems_srv.sh
```

```
SoftWLC :
```

```
curl -shttp://localhost:8080/northbound/getVersion
```

```
xml- .
```

```
$ curl -s http://localhost:8080/northbound/getVersion
```




Master Backup .

SNMP

OID		
1.3.6.1.4.1.2021.10.1.3.1	OctetString	Load average 1
1.3.6.1.4.1.2021.10.1.3.2	OctetString	Load average 5
1.3.6.1.4.1.2021.10.1.3.3	OctetString	Load average 15
1.3.6.1.4.1.2021.4.6.0	Integer	, ,
1.3.6.1.4.1.2021.4.5.0	Integer	, ,
1.3.6.1.4.1.2021.4.4.	Integer	Swap ,
1.3.6.1.4.1.2021.4.3.0	Integer	Swap ,
1.3.6.1.2.1.25.2.3.1.5.31	Integer	, (.)
1.3.6.1.2.1.25.2.3.1.6.31	Integer	, (.)
1.3.6.1.2.1.25.2.3.1.4.31	Integer	,
1.3.6.1.4.1.9586.100.5.2.3.1.4.1	Integer	. : 1 — backup 2 — master

hrStorageTable (1.3.6.1.2.1.25.2.3) MIB Host Resources (RFC1514).

:

```
HrStorageEntry ::= SEQUENCE {  
    hrStorageIndex INTEGER,  
    hrStorageType OBJECT IDENTIFIER,  
    hrStorageDescr DisplayString,  
    hrStorageAllocationUnits INTEGER,  
    hrStorageSize INTEGER,  
    hrStorageUsed INTEGER,  
    hrStorageAllocationFailures Counter  
}
```

...
:

- hrStorageDescr — , «*Swap space*» «/» - ;
- hrStorageAllocationUnits — , . — ;
- hrStorageSize — ();
- hrStorageUsed — ().

IP-.

HTTP API

Prometheus . :

http://<IP EMS>:9091/api/metrics

Prometheus :

```
- job_name: 'EMS-server'  
  scrape_interval: 180s  
  scrape_timeout: 180s  
  metrics_path: '/api/metrics'  
  static_configs:  
    - targets: ['<IP    EMS>:9091']
```