Установка компонентов KUMA на отдельную машину

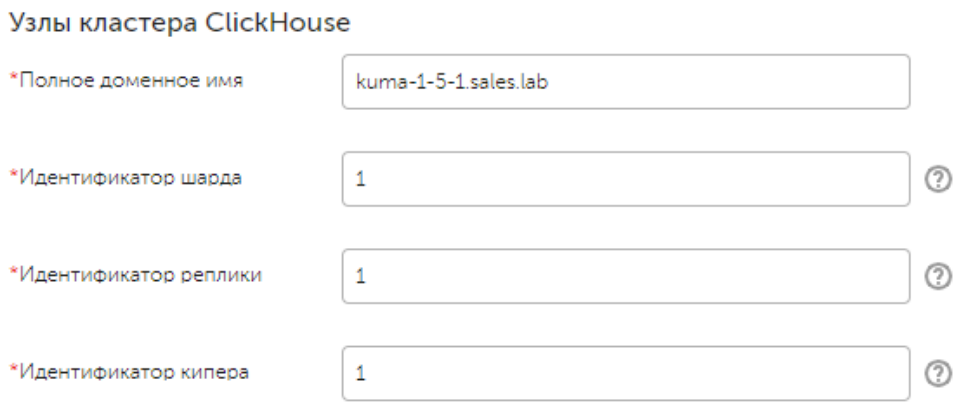
- ????????? ?????? ????????? (???? ????? ?? ????????? ??? ?????????)
- ????????? ??????????/???????????
- ????????? ????????? KUMA
- ????????? ?????? Linux
- ????????? ?????? ? ?????? ???? (Diode)
- ???????? ?????????? KUMA ???????

Установка службы хранилища (если этого не произошло при установке)

?????? ?????????? ????????? ?????? ? ??????, ???? KUMA ???? ??????? ???????????, ?? ?????? ????????? ?? ???? ?????????? ?? ???????????????? ????????. ?????????? ?????????? ???? ?????????????, ??? ??? ???????? ? ??????? ?????????? ?? ???????? ? ???????????? ??????? clickhouse ? ?????????? ???????? ????????.

? ????????? ?????? ??????? ???????????????? ???????????: https://kb.kuma-community.ru/books/ustanovka-i-obnovlenie/page/ustanovka-xranilishha-kuma

??????? ?????? ????????? ????????? ? **Ресурсы – Хранилища** ????? ?????? ?? ?????? ???????? ????????? ?????????? ???????? ? ????? ??????? ?????????? ???? ???????? ??????? ? ??????? ?????? (?? 365 ???? ???? ???????? ??????) ? ???? ???????? (?? ?????? 2.1) ? ???????????? ? ???????????? ??????????, ???? ?????? ??? All-In-One ????????? (??????? fqdn ?????????):

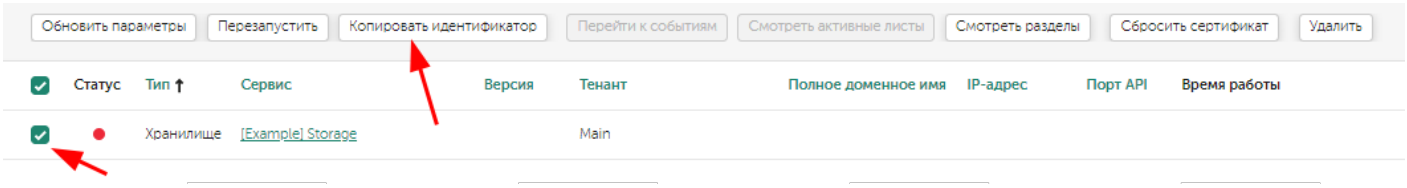


????? ??????? **Сохранить**.

????????? ????????? ?????? **Ресурсы – Активные сервисы** ????? ??????? ????????? ????? ?????? ? ?????? ?? ?????? **Создать сервис**.

? ?????? ???????? ????????, ???????????? ???? ?? ?????? ?? ?????????? ????????? ????? ???????? ? keeper'??

?????????? ????????????? ???????:



??????? ?? ssh ?? ?????? ??? ????? ?????????????? ?????? ????????? ? ????????? ??????? (api.port 7230 ????? ???????????? ???????????? ????? ?? ??????? ????), ??????? ???????? ???????? (??? ?????????, ?????? ?????????? ????? ???????????? ? ???????):

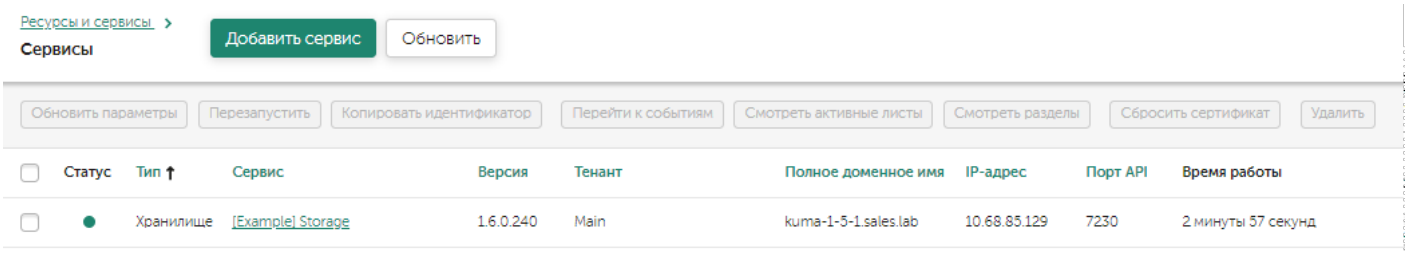
> ??????? ?????????? ????????? keeper'??, ????? ??? Clickhouse

> ? ?????? ?? ????? ???????? ? keeper'?? ?????? ???? ???? ?????????? ?????????????

????????????? ?????? ?????????:

```
/opt/kaspersky/kuma/kuma storage --id <???_?????????????> --core https://<FQDN/???_?????_???????_????>:7210 --
api.port 7230 --install
```

? ??????? **Ресурсы – Активные сервисы** ?????????, ??? ?????? ???????? ????? 30 ?????? ? «???????» ???????? ??????????:



????? ???????? ????? ??????????, ??????? ???????????? ? ????????????? ???????, ????????? ? **Ресурсы – Точки назначения**, ????? ??????? ?? ?????? **Добавить точку назначения**. ?????????? ???????? ? ????? ? ???? URL ??????? FQDN ? ???? ?????? ?????????, ????????: `kuma-1-5-1.sales.lab:7230`, ????? ??????? **Сохранить**.

> ? ????? ?????????? ? KUMA ????????????? URL ???? ????????, ???????? ????????????? ?????? ? ????? keeper ????????? ?? ?????

??????????? ???????? ??????????? ??? ????????? ????????? ???????????, ?????? ? ?????????? ????? ???????? ???????, ??????? ?????????? ????? ????????? ??? ????????? ??????.

??? ???????? ?????? ????????? (???? ??????????), ????? ???????????? ????????? ???????:

```
/opt/kaspersky/kuma/kuma storage --id <???_?????????????> --uninstall
```

Установка коллектора/коррелятора

??? ????????? ??????????????? ??????????/??????????? ?????????? ??????????? ?????? ????????? ?? ??? ????????????? ?? ? ?????? ??????? ? ??????? ?????????? ??????? « ??????????» ???? ??????????, ? ????? ?????? ?????????? KUMA ?????? ???? ???????? ?? ???? ?? ???? ??????.

? ?????? ?????? ??????????? ?????? ?????????? ???? ? ?????? ???????????, ? ?????? ????????? DNS ????????? IP ? /etc/hosts. ??????? ????????? ???????? **этой** ?????.

1. ??????????? ??????????? ???? kuma ? ?????? ?? ????????????? ??????????? KUMA (???? ?????? ????????? `/kuma-ansible-installer/roles/kuma/files/kuma`), ???????? ????????? ????????? ?????:
   - `/opt/kaspersky/kuma/kuma`

2. ???????? ???????????? ? ?????? kuma ?? ????? ??????:

   ```
   useradd -Mrs /usr/bin/false kuma
   ```

3. ???????? ????????? ????? /opt/kaspersky/kuma/ ?? ????? ??????, ???????? ????? correlator ? collector.

4. ????????? ????????? ? ?????? ???????????? ????? ? ???? ???????? ? ?????????? ??????????

   ```
   chmod +x /opt/kaspersky/kuma/kuma
   touch /opt/kaspersky/kuma/LICENSE
   chown kuma:kuma -R /opt/kaspersky/kuma/*
   /opt/kaspersky/kuma/kuma license
   ```

????? ??????? ????????? ?????? ??????????/??????????? ???????? ?????????? ???????????? ????????. [?????? ? DNS ???????????.]

??????? ? ?????? KUMA 2.1.3 ???????? ????????? ??????? ? ?????? ??? ??????????????? ????????? ??????????? ?? ????????? ???????. ????????? ?? ??????: https://support.kaspersky.com/help/KUMA/2.1/ru-RU/222160.htm

Установка хранилища KUMA

??? ????????? ????????????? ????????? ??? ?????? ?????????? ?????????? ?????????? ?????? ????????? ?? ??? ????????????? ?? ? ?????? ??????? ? ??????? ?????????? ??????? « ??????????» ???? ?????, ? ????? ?????? ?????????? KUMA ?????? ???? ???????? ?? ???? ?? ???? ??????.

???????? ?????????? ????????? ?? ?????? ?????? ??????????(??) ????????????? ????????????? ???????.

??? ?????????? ?????? (с 3.2) ? ??????? expand.inventory:

????????? ? ????? ????????? `kuma-ansible-installer`

```
cp expand.inventory.yml.template expand.inventory.yml
```

????????????? ???? expand.inventory.yml, ?????? ????????? ????????? ?? kuma-additional-storage-1.example.com ????:

```
kuma:
  vars:
    ansible_connection: ssh
    ansible_user: root
  children:
    kuma_collector:
    kuma_correlator:
    kuma_storage:
      hosts:
        kuma-additional-storage-1.example.com:
```

????????? ?????? ?????????, ????????? ????????:

```
PYTHONPATH="$(pwd)/ansible/site-packages:${PYTHONPATH}" python3 ./ansible/bin/ansible-playbook -i
expand.inventory.yml expand.inventory.playbook.yml
```

??? KUMA ?? 3.?:

```
PYTHONPATH="$(pwd)/ansible/site-packages:${PYTHONPATH}" python3 ./ansible/bin/ansible-playbook -i
expand.inventory.yml expand.playbook.yml
```

???

```
./expand.sh expand.inventory.yml
```

??? ?????? ??????:

- ??? ????????? ?????????? ????????? (??? ???????? ClickHouse) ????????? ??????? ? ????? ?????? ???? `additional-storage-cluster.inventory.yml.template` ?? ????????? (??? ????? ????? ??????) ?? ????? ?????????, ????????? ? ??????? ????????? install.sh ??????? (????????? ???????) ? `install.playbook.yml` ?? `additional-storage-cluster.playbook.yml`, ????? ????????? ?????????.
- ??? ????????? ????????? ???????? ? ?????? ???????? ClickHouse) ????????? ??????? ? ????? ?????? ???? ????????? `distributed.inventory.yml` (??????? ????? ????????????? ??? ?????????????? ???????) ?? ????? ?????????.



? ?????? ?????????? ?????? ??????? ? ???????? ?????????? ?????? ???????? ? ???????? ???????

Установка агента Linux

??????????? ???????????? ?? ??????? ??????? ????????? ? ??????-??????? ?? ???????: https://support.kaspersky.ru/kuma/4.6/221396?page=help

Создание и публикация сервиса агента

1. ??????? ? ???-????????? KUMA ? ????????? ?? ??????? **Ресурсы** – **Агенты**.

2. ??????? ?? ?????? **Добавить агент**.

3. ??????? ??????????? ????????? ??? ?????? ? ???????????? ? ????????????? Linux-???????: https://support.kaspersky.ru/kuma/4.6/217776?page=help

4. ????????? ????????? ?????? ??????.

5. ????????? ?? ??????? **Ресурсы** – **Активные сервисы**.

6. ??????? ?? ?????? **Добавить сервис**, ???????? ????????? ?????? ?????? ? ??????? ?? ?????? **Создать сервис**.

7. ???????? ???????? ????????? ?????? ?????? ? ??????? ? ??????? ????? ?????? ?? ?????? **Копировать идентификатор**.

???????????? ????? ?????????? ? ????? ??????. ????????? ?????????? ????? ??????? ????????????, ?? ??????????? ??? ?????????? ????????? ??????? ??????.

Установка агента в качестве службы

? ?????? ??????? ??? **<ID>** ????????? ???????? ????????????? ??????, ??????? ??? ?????????? ? ?????????? ??????? ? ?. 7. ??? **<KUMA-FQDN>** ?????????? FQDN ???? KUMA.

1. ???? ????????? ?????? ????????????? ?? ??????, ?? ??????? ??? ??????????? ?????-???? ?????????? KUMA, ?? ???? 2, 3, 5, 7 ????? ???????????.

2. ?????????? ?? ???????????? KUMA ???? `kuma-ansible-installer/roles/kuma/files/kuma` ? ??????????? ??? ?? ?????? ??? ????????? ?????? ? ????? ??????????.

3. ???????? ???????????? ??? ??????? ?????? ????????? ????????

```
useradd -Mrs /usr/bin/false kuma
```

4. ???????? ??????? ?????????? ??? ??????

```
mkdir -p /opt/kaspersky/kuma/agent/<ID>
```

Для KUMA < 4.0

5. ?????????? ???? `kuma` ?? ???? `/opt/kaspersky/kuma/` ?? ????? ?? ???????????? ??????????? ??????? ??? ?? ?????? ?????? ????????? (????: `kuma-ansible-installer/roles/kuma/files/kuma`) ? ?????????? `/opt/kaspersky/kuma/`

```
cp kuma /opt/kaspersky/kuma/kuma_agent
```

6. ????????? ???????????? kuma ?????????? ??????????

```
chown -R kuma:kuma /opt/kaspersky/kuma/
```

7. ??????? ????? ?? ?????????? ????? kuma

```
chmod +x /opt/kaspersky/kuma/kuma_agent
```

8. ??????? ???????????? ??????????

```
/opt/kaspersky/kuma/kuma_agent license
```

?? ?????? ????? ????? ????????? ?????? ?????? ?????? ??? ???????? ??? ????????????????. ??? ????? ?????????? ????????? ???????

```
/opt/kaspersky/kuma/kuma_agent agent --core https://<KUMA-FQDN>:7210 --id <ID> --wd
/opt/kaspersky/kuma/agent/<ID>
```

??? ????????? ?????????? ????????????? ?????????? ?????? `Ctrl + C`


```
/opt/kaspersky/kuma/kuma_agent agent --core https://<KUMA-FQDN>:7210 --id <ID> --wd
/opt/kaspersky/kuma/agent/<ID>
```

Для KUMA >= 4.0

5. ?????????? ???? `agent` ?? ?????? ?????? ????????? (????: `kuma-ansible-installer/roles/kuma/files/agent`) ? ?????????? `/opt/kaspersky/kuma/`, ????? ???????????? ??? ?? `kuma_agent`

```
cp agent /opt/kaspersky/kuma/ ; mv /opt/kaspersky/kuma/agent /opt/kaspersky/kuma/kuma_agent
```

6. ????????? ???????????? kuma ?????????? ??????????

```
chown -R kuma:kuma /opt/kaspersky/kuma/
```

7. ??????? ????? ?? ?????????? ????? kuma_agent

```
chmod +x /opt/kaspersky/kuma/kuma_agent
```

8. ??????? ???????????? ??????????

```
/opt/kaspersky/kuma/kuma_agent license
```

?? ?????? ????? ????? ????????? ?????? ?????? ?????? ??? ???????? ??? ???????????????. ??? ????? ?????????? ????????? ???????. ??? ????????? ?????????? ????????????? ?????????? ?????? `Ctrl + C`

9. ???????? ???? ? ????????? ??????? ??????

```
touch /usr/lib/systemd/system/kuma-agent-<ID>.service
```

10. ????? ??????? ???????? ???????? ????????? ???? ?? ????????????? ? ??????? ? ??? ????????? ????????????

```
[Unit]
Description=KUMA Agent Syslog
StartLimitIntervalSec=1
After=network.target

[Service]
Type=notify
Restart=always
RestartPreventExitStatus=99
TimeoutSec=300
RestartSec=5
WatchdogSec=60

User=kuma
Group=kuma

ExecStartPre=+-chown kuma:kuma /opt/kaspersky/kuma/kuma_agent
ExecStartPre=+-chown -R kuma:kuma /opt/kaspersky/kuma/agent/<ID>
ExecStart=/opt/kaspersky/kuma/kuma_agent agent --core https://<KUMA-FQDN>:7210 --id <ID> --wd
```

```
/opt/kaspersky/kuma/agent/<ID>/

LimitFSIZE=infinity
LimitCPU=infinity
LimitAS=infinity
LimitNOFILE=64000
LimitNPROC=64000
LimitMEMLOCK=infinity
TasksMax=infinity
TasksAccounting=false

[Install]
WantedBy=multi-user.target
```

11. ????????? ?????????? ????
12. ????????? ?????????? ???????????

```
systemctl daemon-reload
```

13. ????????? ?????? ??????

```
systemctl start kuma-agent-<ID>.service
```

14. ????????? ??????? ??????????

```
systemctl enable kuma-agent-<ID>.service
```

????? ????????? ??????? ?????? ????????? ????????? ? ???-?????????? KUMA ?? ???????

Ресурсы – **Активные сервисы** ????????? ?? ???????. ????? ????? ????????? FQDN ? IP-????? ??????.

Диагностика неполадок

? ?????? ????????????? ????? ? ?????? ?????? ??? ?????? ????????? ?????? ?????????????? ?????????? ????? ???????? ?????????? ?????????:

1. ???????? ????????? ??????

```
systemctl status kuma-agent-<ID>.service
```

2. ???????? ??????? ??????

```
journalctl -f -u kuma-agent-<ID>.service
```

3. ???????? ??????? ??????

```
tail -f /opt/kaspersky/kuma/agent/<ID>/log/agent
```

??? ????????? ????????????? ?????????? ? ??????? ?????? ?????????? ? ???-?????????? KUMA ? ?????????? ?????? ?????????? ??????? ????? ? ?????????? ??????? ????? ???? ????????? ?????????? ?????????? ??????? ??????.

Удаление агента

??? ???????? ?????? ?????????? ????????? ??? ??????:

1. ????????? ??????? ??????

   ```
   sudo systemctl stop kuma-agent-<ID>
   ```

2. ?????????? ??????? ??????

   ```
   sudo systemctl disable kuma-agent-<ID>
   ```

3. ???????? unit-????? ??????

   ```
   sudo rm /usr/lib/systemd/system/kuma-agent-<ID>.service
   ```

4. ?????????? ???????????? systemd

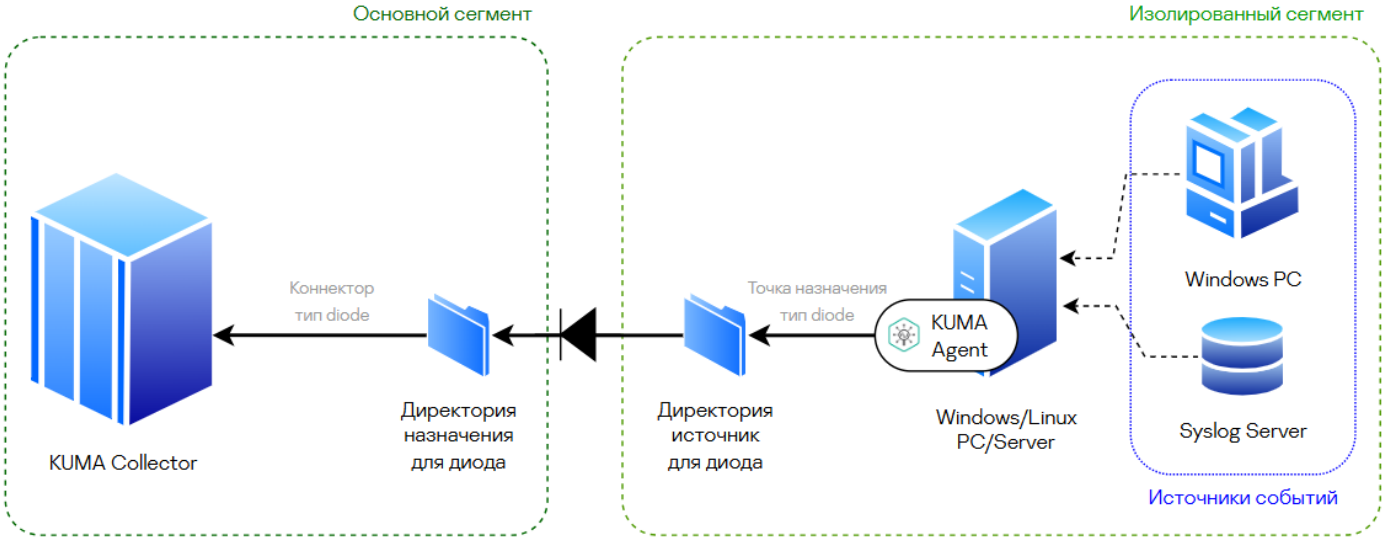
   ```
   sudo systemctl daemon-reload
   ```

5. (???????????? ???)

   ```
   sudo systemctl reset-failed
   ```

Установка агента в режиме диод (Diode)

Схема работы сбора в режиме diode



?????, ??????????? ? ????????????? ???????? ????, ???????? ??????? ? ?????????? ? ?????????? ?? ? ?????????? ????????, ?????? ?? ???????? ???? (????-????) *(????????? ?????????????, ??? ??????? KUMA)*. ???? ????????? ????? ? ?????????? ?????????? ???????? ????, ?????? ?? ?????????? ?????????. ?? ?????????? ?????????? ??????? ???????? ?????????, ?????? ?? ????? ??????????.

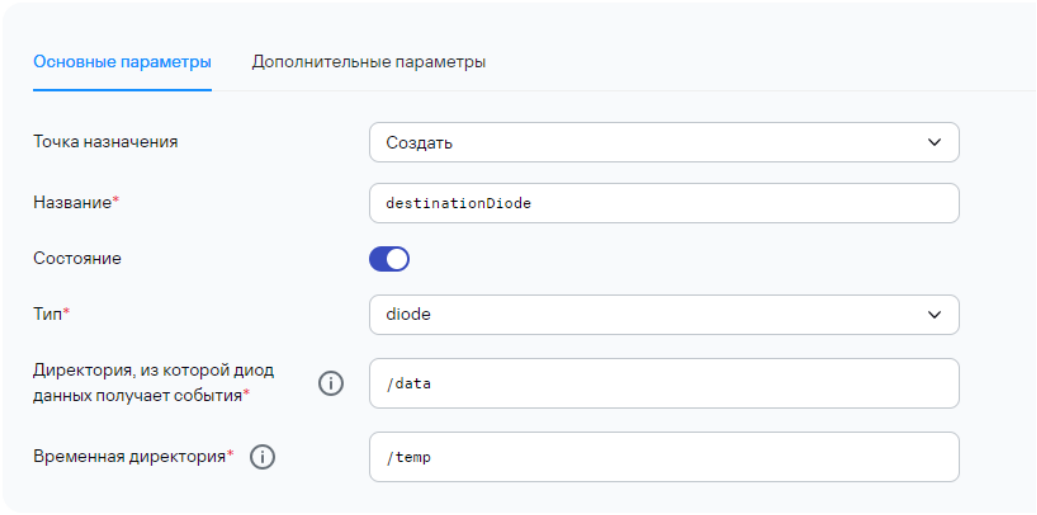
? KUMA ?????? ?? 4.2 ????????? ???????? ????? ?????????? ??????????? UDP

??? ????????????? ?????????? ??????? ???????? ??????? ????? ???? ??????????? ???? destination ? connector ???? diode, destination ?? ?????? ? connector ?? ??????????. ????? ????? ????? ????? ?? ????????? ????? connector, ? ????????? - ????? ?? ????????? destination.

????? ??? ?????? ??????????? ??????? ? ?????. ??? ?????? ????? ?????????? ???????? >=bufferSize (?? ????????? 64 ??), ??? ? ??????? ?????????? ?????? ?????? ? ???? ???????? > FlushInterval (?? ????????? 10 ???):

- ????? ?????????? ??????? ? ???? ?? ????????? ??????????, ????????? ????????????
- ????? ????????? ???? ?? ????????? ????? ? "??????????, ?? ??????? ???? ?????? ???????? ??????? (Data diode source directory)" , ??????? ????????????? ????. ???????? ????? ???????? sha256 ??? ??????????? ??? ??????????? ????????????? ???????? ???????????.

Точки назначения



?? ????????? ?????? ?????? ?? ??????????, ?? ??? ????? ????????????, ???? ??????? ? ?????????? destination ?????? ?????. ? ???? ?????? ??? ?????????? ?????? ??? ?? ???????? ?????? ???? ?????? ? ??????????????? diode connector.

??? ?????????? (diode connector) sha256 ??? ??????????? ????? ???????????? ? ????? ?? ????? ?????, ??? ????????????? ???? ????????? ? ????????? ??????? ??????.

> ?????? ????? ?????????? ? ?????? ?????? ????? ??? diode. ? ???? ??????? ?????????? ??????? ??????????, ?? ??????? ???? ?????? ????? ?????????? ????? ?? ??????? ??????? ????.

> ??? diode-?????? ?????????? ??????? ?????????? ???? sql ??? netflow.

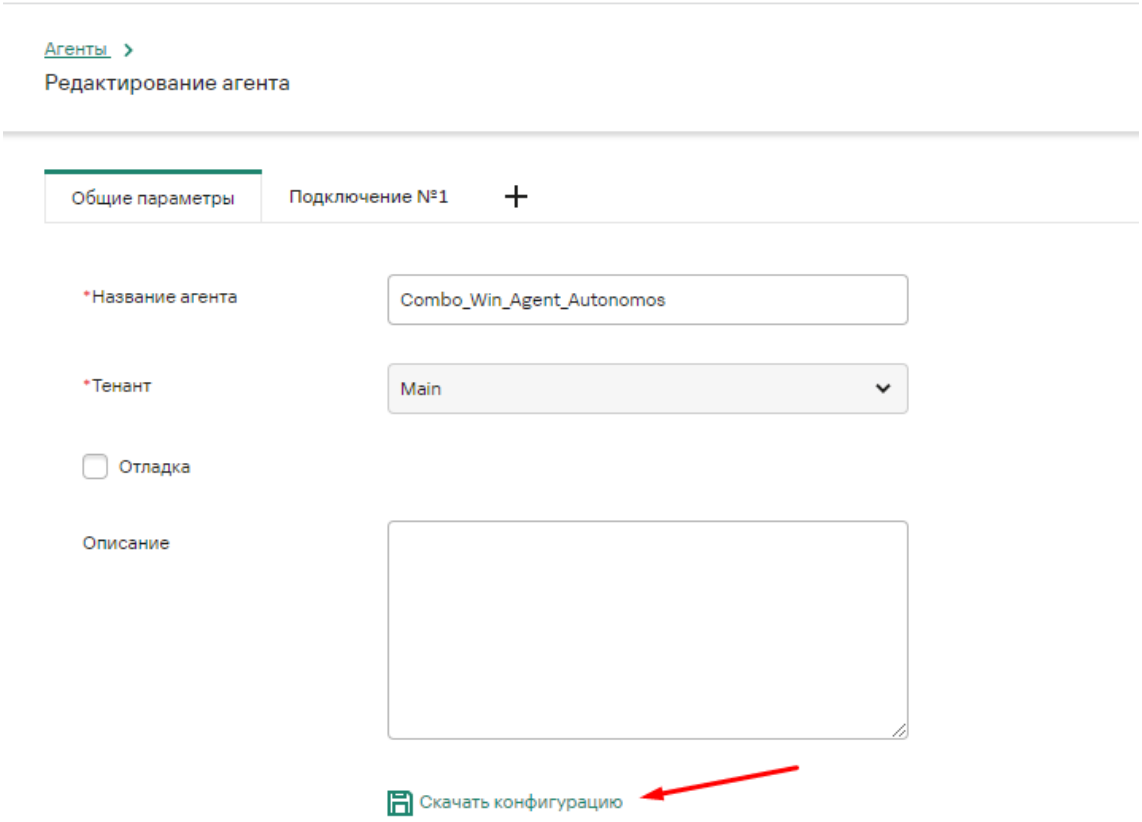
Конфигурационный файл

????????????? ???? ?????? ??????????? ? ?????????????? ???? ??? ??????????? ?????????? ???????? ???????. ??? ????????? ?????????? ???????? ? ???????? ????, ?????????? ???????? ???????? ?????????? ?? ??????? ?????????????? ???? ???????, ????? ? ?????????????? ????? ???????????? ??????? ? ??????, ??? ??? ???? ??????? (?? ?. ??????? ????????). ? ???????? ?????? ??????, ???????????? ??????? ?????? UUID ???????, ?????????? ???????? ????????? ???????? ? ???? secrets. ?????? ???????? ????? ????????? ??????? ? ?????????????? ?????, ??????? ???? ????????.

????? ? ??????? ??????? ???? ???????.

Имя поля	Тип	Описание
user	строка	Имя пользователя
password	строка	Пароль
token	строка	Токен
urls	массив строк	Список url
publicKey	строка	Публичный ключ (используется в PKI)
privateKey	строка	Приватный ключ (используется в PKI)
pfx	строка, содержащая base64 закодированное содержимое pfx	Содержимое pfx файла, закодированное в base64. На linux получить base64 кодировку файла можно при помощи команды base64 -w0 src > dst
pfxPassword	строка	Пароль от pfx
securityLevel	строка	Используется в snmp3. Возможные значения: NoAuthNoPriv, AuthNoPriv, AuthPriv
community	строка	Используется в snmp1
authProtocol	строка	Используется в snmp3. Возможные значения: MD5, SHA, SHA224, SHA256, SHA384, SHA512
privacyProtocol	строка	Используется в snmp3. Возможные значения: DES, AES
privacyPassword	строка	Используется в snmp3
certificate	строка, содержащая base64 закодированное содержимое pem	Содержимое pem файла, закодированное в base64. На linux получить base64 кодировку файла можно при помощи команды base64 -w0 src > dst

?????????????? ???? ??????????? ?? ???-?????????? ???? KUMA ? ????? ???????? ??????:



Запуск агента (автономный агент)

??? ????????? ?????? ??? ???????????????? ???? ?? ?????? ?????????? ? ??????????, ? ??????? ???????????????? ?????.

?????????? ??? ?????? ?????? ???????? ??????? (ACL) ????????? ????? ??????? ? ???????????????? ????? ???, ????? ?????? ?? ?????? ????? ??? ?????? ? ???????????, ??? ??????? ????? ???????? ?????.

TLS ?? ????????, ?? ????????? ??????????? ? ????.

?????????? ?????????? ?? ??????????? ???????? ?? ???????: `kuma.exe help agent`

Linux

??????? ???????????? ??????????: `/opt/kaspersky/kuma/kuma license`

??? ??????? ?????? ????????? ??????????? ???? /opt/kaspersky/kuma/kuma ? ??????, ??? ??????????? KUMA ?? ?????? ? linux, ??? ????? ??????? ????? ? ????????? ???: `./kuma agent --cfg <path to config file> --wd <path to working directory>`
????? ????? --wd ??????????? ???? ??? ???????? ?????? ??????, ?? ????????? ??? ????? ????????? ? ??????? ??????????.

???????????????? ???? ????? ????????? ???????, ??? ??????? ???????? ??? ?????? ACL, ??????????? ?????? ?????? ???????????? KUMA (600).

Windows

??????? ???????????? ??????????: `/opt/kaspersky/kuma/kuma.exe license`

??? ?????????

```
kuma.exe agent --cfg <path to config file>
```

```
kuma.exe  agent --cfg <???? ? ???????????????? ????? ??????> --wd <???? ? ??????????, ??? ????? ??????????
????? ???????????????? ??????. ???? ?? ????????? ???? ????, ????? ????? ????????? ? ??????????, ??? ??????????
???? kuma>
```

? ??????????

```
kuma.exe agent --cfg <path to config file> --user <user to start service as> --install
```

??? ????????? ???????????? ???????????????? ???? ???????????? ? ??????? ?????????? (`ProgramData\Kaspersky Lab\KUMA\agent\<serviceID>\`) (ID ??????? ?? ??????? ?????? ? ???????????????? ?????), `kuma.exe` ???????????? ? ??????? ?????????? (`Program Files\Kaspersky Lab\KUMA`).

? ?????????? ???????????? ???????????? ???????????????? ????.

?????????????? ???? ????? ????????? ???????, ??? ??????? ???????? ??? ?????? ACL, ?????????? ?????? ?????? ???????????? ?? ????? ???? ??????????? KUMA.

Удаление

```
kuma.exe agent --cfg <path to config file> --uninstall
```

???

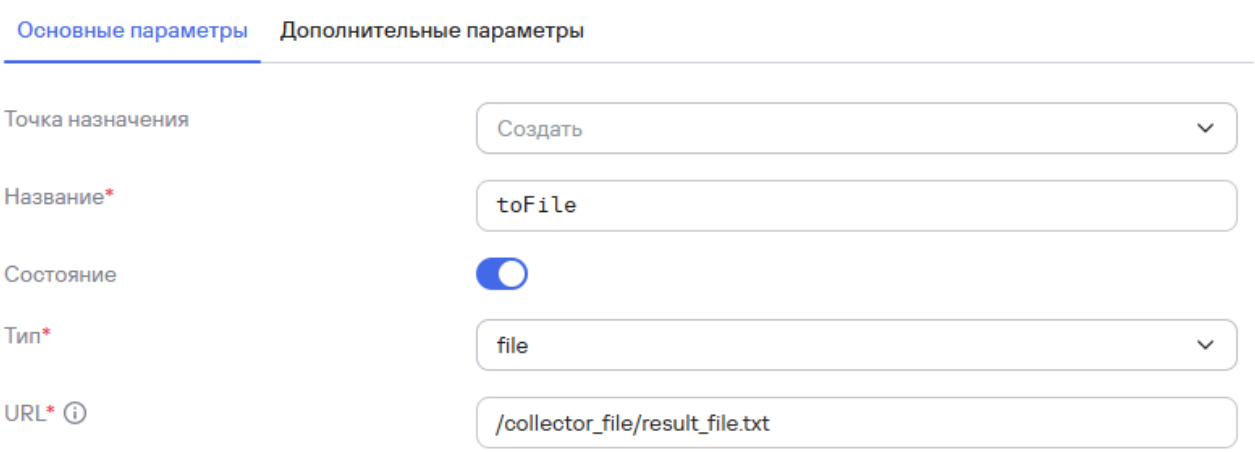
```
kuma.exe agent --id <????????????? ??????? ??????, ?????????? ? KUMA> --uninstall
```

Сбор коллектором из изолированного сегмента

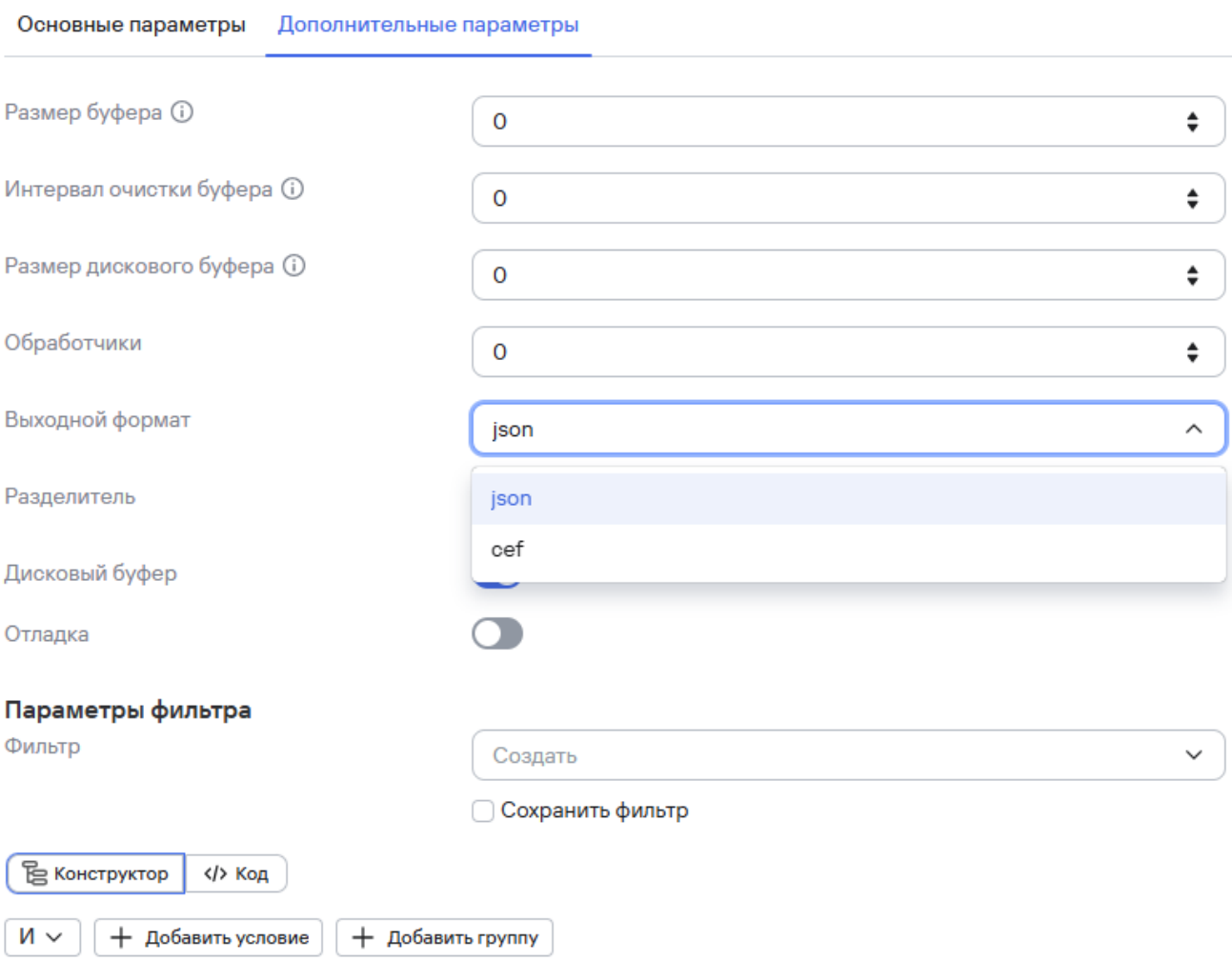
??? ????????? ?????????? (?.?. ????? ???????????? ?? ??? ???? ???????????) ?????????? ????? ? ?????, ??? ????? ?????? ????????????? ????????? ???? ? ????????????? ???????, ??????? ????? ????????? ???? ???????????. ????? ????????? ? ????????????? ????? ????????? ????????? ??????? ?? ? ?????????, ? ? ???? (????????: ????????????? ???? ?? ?????? ? ?? ??? JSON ?????? ??? CEF). ????????????? ?????????? ??????? ???? (?????) ? ???? ????? ??? ???????????? kuma:

```
chown -R kuma:kuma /collector_file/
chown -R kuma:kuma /collector_file/result_file.txt
```

Создание точки назначения



Создание точки назначения



????? ???? ???? ???????? ?????????? ????? ? ?????????? ?? ????? ? ???? ??????? ?? ????? ? ?????? ??????.

Массовое обновление KUMA агентов

?????????, ??????????? ?? ?????? ????????, ???????? ??????????? ??????? pre-sales ?/??? community KUMA ? **НЕ** ???????? ??????????? ????????????? ???????.

?????? ???????? ???????? ? ?????? 3.4 KUMA, ?.? ?????? ? ??? ?????????? ????????? ????? --accept-eula

? ???????, ?? ??????? ????? ????????? ?????? ??????????? ??????? ??????? ? ???????? ?? 5985/TCP ??? ??????? ?????? ? 445/TCP ??? ???????? ??????, ????? ????? ?????????? ????????????? ?? ???????.

?? ?????? ????? ??????

? ????????? ? ??? ???????? ????, ? ??????:

```
# ?????? ????????
$servers = @("server1.domain.local", "server2.domain.local")

# ?????? ?????????? ??????
$version = "3.4.1.53"

# ????????? ???? ? ?????, ??????? ????? ???????????
$localFilePath = "C:\Temp\kuma.exe"

# ???? ?? ????????? ???????, ???? ????? ?????????? ???? (???? ??????????? ????????????? ???? ??? ????????? KUMA ??????)
$remoteFilePath = "C$\Program Files\Kaspersky Lab\KUMA\kuma.exe"
```

??????? ?????? ???????:

1. ???????????? ? ???????? ?? ?????? (??????????)
2. ?????????, ???? ?? ?????? KUMA ?? ???????
3. ????????? ?????? KUMA
4. ???????? ??????????? ???? kuma.exe ? ?????????? KUMA
5. ?????? ???? ? ???????????? ??????????? (????????? ???????? ?????? ? ????? .license-version
6. ????????? ? ???????, ? ?????? KUMA ???? --accept-eula
7. ????????? ?????? KUMA ??????