Branches and Head Office

This type of connection allows you to combine the LANs of several SafeUTM servers.

Features of IPsec technology implementation in SafeUTM assume two roles of using SafeUTM:

- **Head office –** SafeUTM must have a public address on the Internet and accept connections from other SafeUTM (Branches), network equipment, or workstations (Remote Users).
- **Branch office –** SafeUTM connects to the Head Office and, as a rule, does not have a public address on the Internet. But if the Branch has a public address, then any other device can also be connected to it.

Setting up Connection Between Branch and Head Office

Head offices and **Branches** are added on the tabs with the same names in the section **Services -> IPsec**.

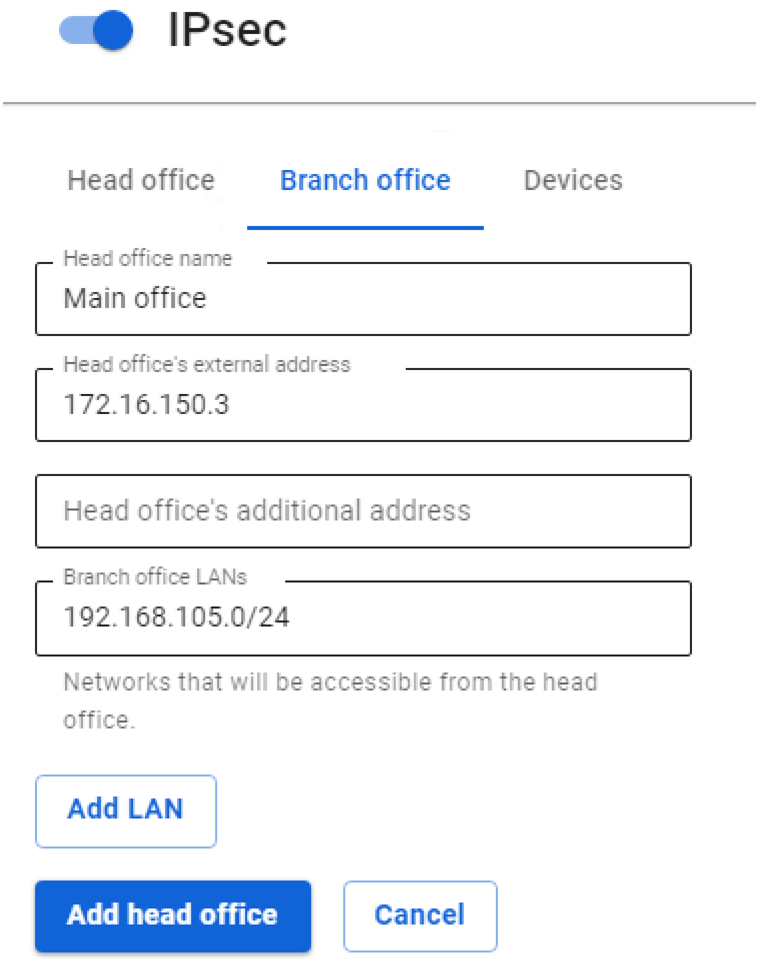
> - Before creating a connection between the Branch and the Head Office, make sure that the **time zone is correctly configured** on each of the connected parties**.** It is impossible to establish a connection without this.
> - Before configuring IPsec, it should be taken into account that for it to work, no IP subnets involved in connections, including the networks of the Head Office and all Branches, should overlap and, moreover, coincide.
> - Networks of local interfaces of the Head offices and Branches to which you want to give access, must be set statically.
> - Before setting up the connection, you need to make sure that one of the servers has a public (white) IP address from the Internet provider. If it turns out that the Head Office does not have a public IP address, and the Branch has such an address, then the server roles for this connection should be reversed.
>
> - When replacing/reissuing the root certificate in the **TLS Certificates** section, IPsec connections Head Office <-> Branch will stop working and they will need to be recreated.

Step 1. Creating a connection in a Branch

In order to create a connection on SafeUTM, which will act as a Branch, it is necessary to perform the following settings in the web interface of this UTM:

1. Open the section **Services -> IPsec -> Branch office** and click **Add** in the upper left corner of the screen.
2. Fill in the following fields:

- **Head office name –** maximum 42 characters.
- **Head office's external address –** the domain name or external IP address of the head office issued by the provider. If necessary, you can enter the **Head office's additional address.**
- **Branch office LANs –** the IP address of the Branch's subnet that will be available to users in the Head Office, in the IP address/mask format.



Head office name: Main office

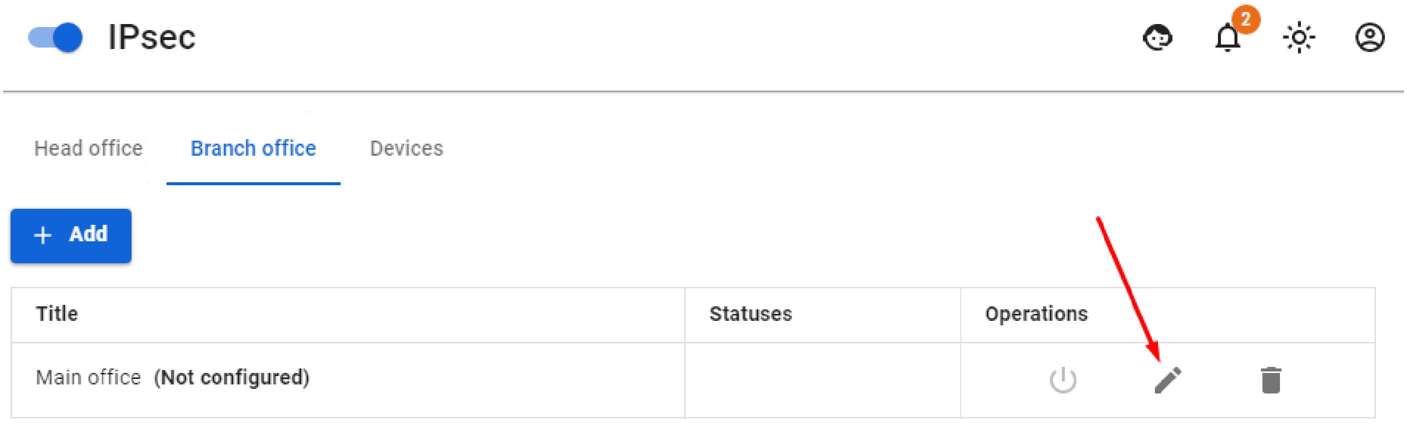
Head office's external address: 172.16.150.3

Head office's additional address

Branch office LANs: 192.168.105.0/24

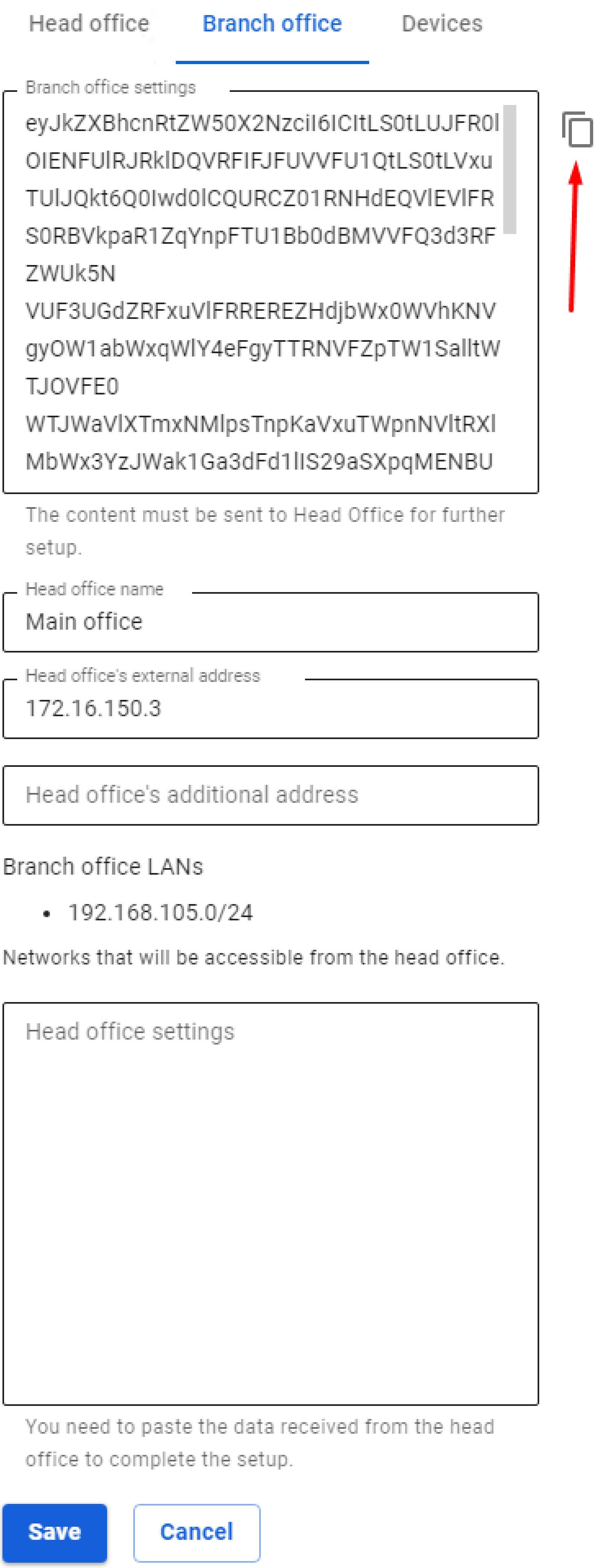
Networks that will be accessible from the head office.

3. After filling in the fields, click **Add head Office.**
4. Click on the edit icon next to the added Head Office.



Title	Statuses	Operations
Main office **(Not configured)**		

5. Copy the contents of the **Branch office settings** field**.** The contents need to be pasted when setting up the Head Office to which the connection is being made (see **step 2**).



Branch office settings

eyJkZXBhcnRtZW50X2NzciI6ICItLS0tLUJFR0l
OIENFUlRJRklDQVRFIFJFUVVFU1QtLS0tLVxu
TUlJQkt6Q0Iwd0lCQURCZ01RNHdEQVlEVlFR
S0RBVkpaR1ZqYnpFTU1Bb0dBMVVFQ3d3RF
ZWUk5N
VUF3UGdZRFxuVlFRREREZHdjbWx0WVhKNV
gyOW1abWxqWlY4eFgyTTRNVFZpTW1SalltW
TJOVFE0
WTJWaVlXTmxNMlpsTnpKaVxuTWpnNVltRXl
MbWx3YzJWak1Ga3dFd1lIS29aSXpqMENBU

The content must be sent to Head Office for further setup.

Head office name: Main office

Head office's external address: 172.16.150.3

Head office's additional address

Branch office LANs

- 192.168.105.0/24

Networks that will be accessible from the head office.

Head office settings

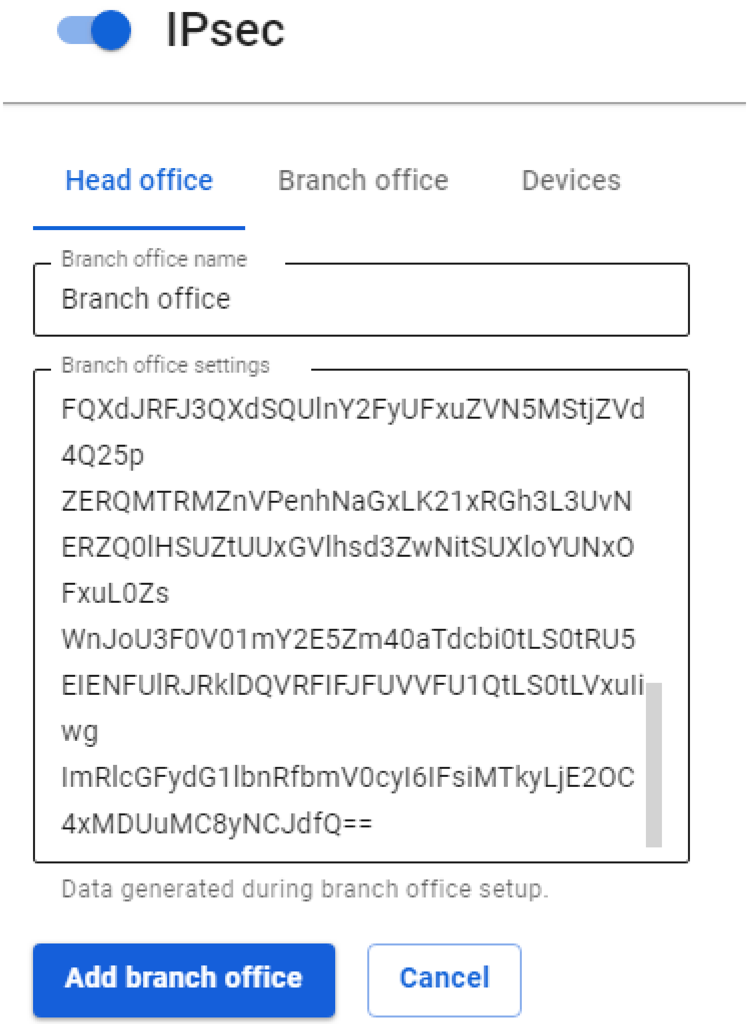
You need to paste the data received from the head office to complete the setup.

Step 2. Creating a connection in the Head Office

In order to create a connection on SafeUTM which will act as the Head Office it is necessary to perform the following settings in the web interface of this UTM:

1. Open the section **Services -> IPsec -> Head Office** and click **Add**.
2. Fill in the following fields:

- **Branch office name –** maximum 42 characters.
- **Branch office settings –** paste the settings that you copied from the Branch after completing **step 1**.

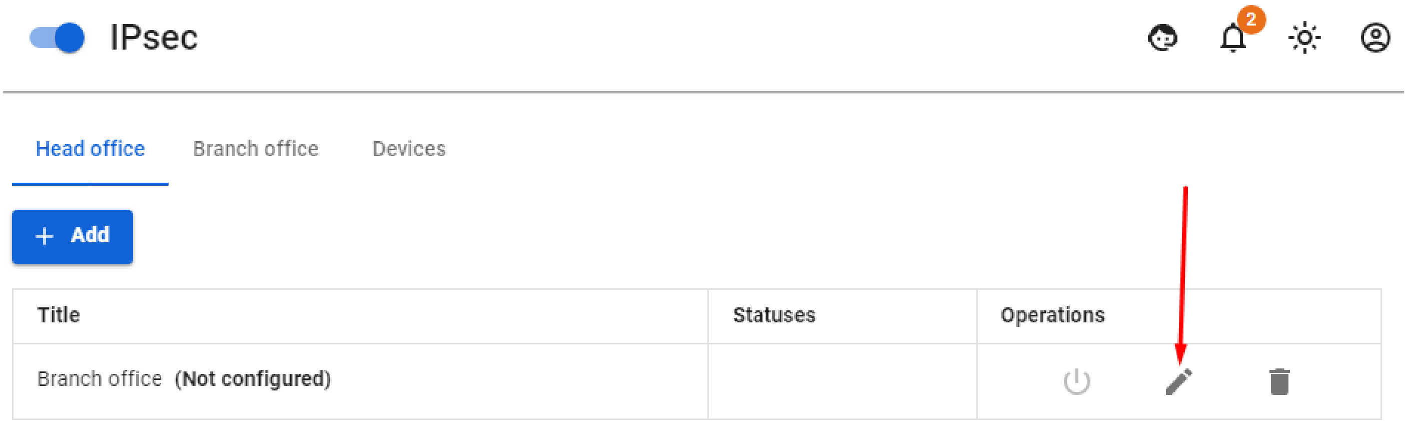


Branch office name
Branch office

Branch office settings
FQXdJRFJ3QXdSQUlnY2FyUFxuZVN5MStjZVd
4Q25p
ZERQMTRMZnVPenhNaGxLK21xRGh3L3UvN
ERZQ0lHSUZtUUxGVlhsd3ZwNitSUXloYUNxO
FxuL0Zs
WnJoU3F0V01mY2E5Zm40aTdcbi0tLS0tRU5
EIENFUlRJRklDQVRFIFJFUVVFU1QtLS0tLVxuIi
wg
ImRlcGFydG1lbnRfbmV0cyI6IFsiMTkyLjE2OC
4xMDUuMC8yNCJdfQ==

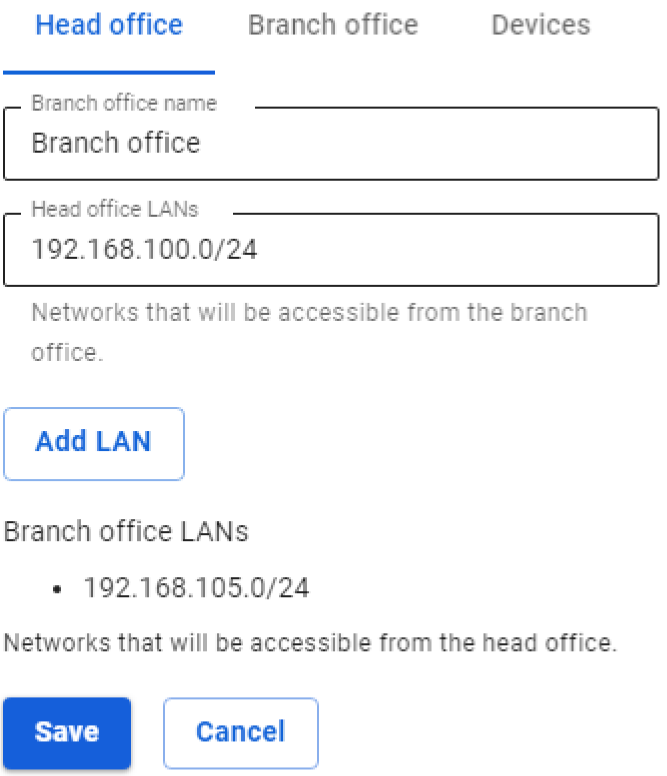
Data generated during branch office setup.

3. Click **Add branch office**.
4. Click the edit icon next to the added Branch.



Title	Statuses	Operations
Branch office **(Not configured)**		

5. Select the LANs of the Head Office and click **Save**.



Branch office name: Branch office

Head office LANs: 192.168.100.0/24

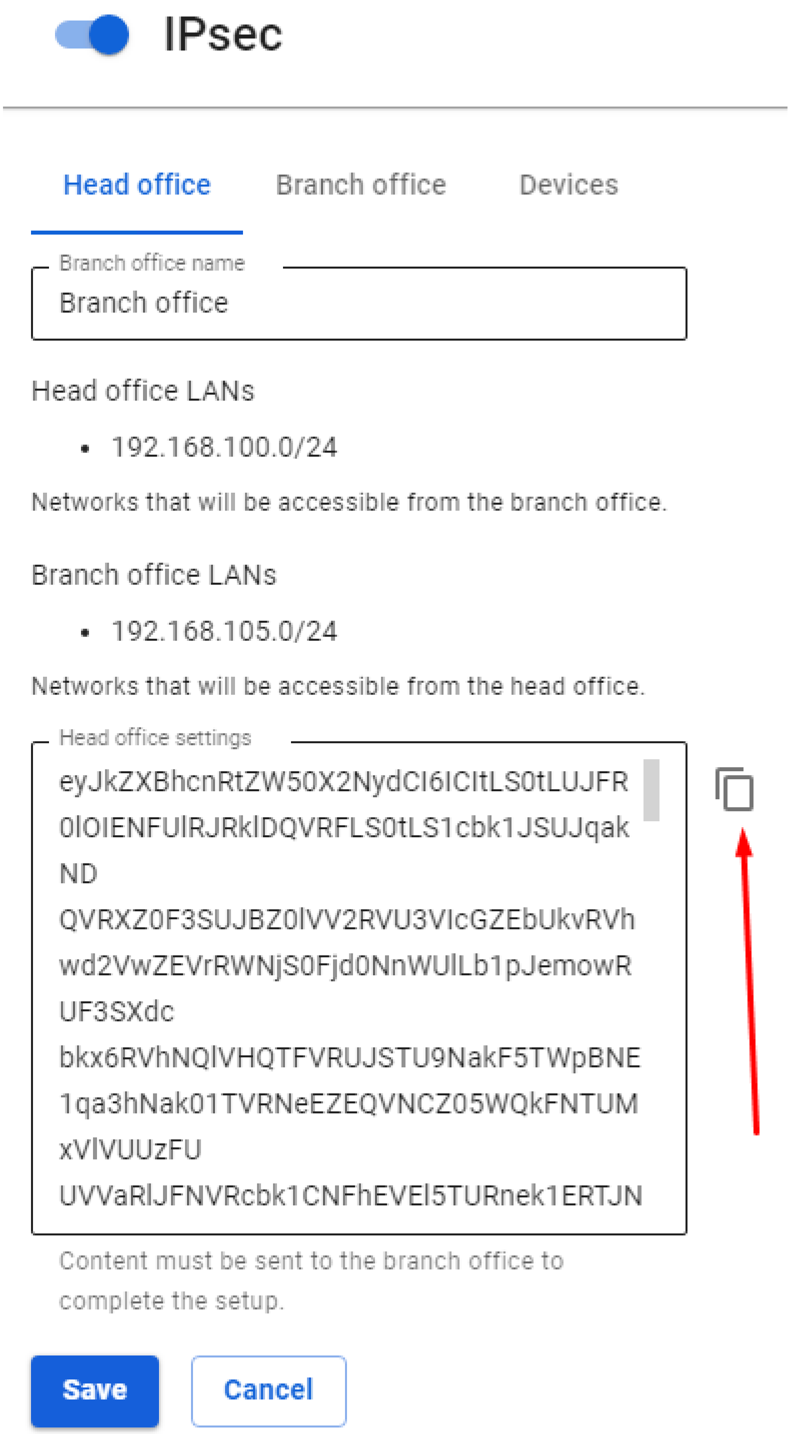
Networks that will be accessible from the branch office.

Branch office LANs

- 192.168.105.0/24

Networks that will be accessible from the head office.

6. Go back to editing the added Branch and copy the contents of the **Head office settings** field**.** The contents need to be added to the Branch settings (see **step 3**).



IPsec

Head office | Branch office | Devices

Branch office name: Branch office

Head office LANs

- 192.168.100.0/24

Networks that will be accessible from the branch office.

Branch office LANs

- 192.168.105.0/24

Networks that will be accessible from the head office.

Head office settings

eyJkZXBhcnRtZW50X2NydCI6ICItLS0tLUJFR
0lOIENFUlRJRklDQVRFLS0tLS1cbk1JSUJqak
ND
QVRXZ0F3SUJBZ0lVV2RVU3VlcGZEbUkvRVh
wd2VwZEVrRWNjS0Fjd0NnWUlLb1pJemowR
UF3SXdc
bkx6RVhNQlVHQTFVRUJTU9NakF5TWpBNE
1qa3hNak01TVRNeEZEQVNCZ05WQkFNTUM
xVlVUUzFU
UVVaRlJFNVRcbk1CNFhEVEl5TURnek1ERTJN

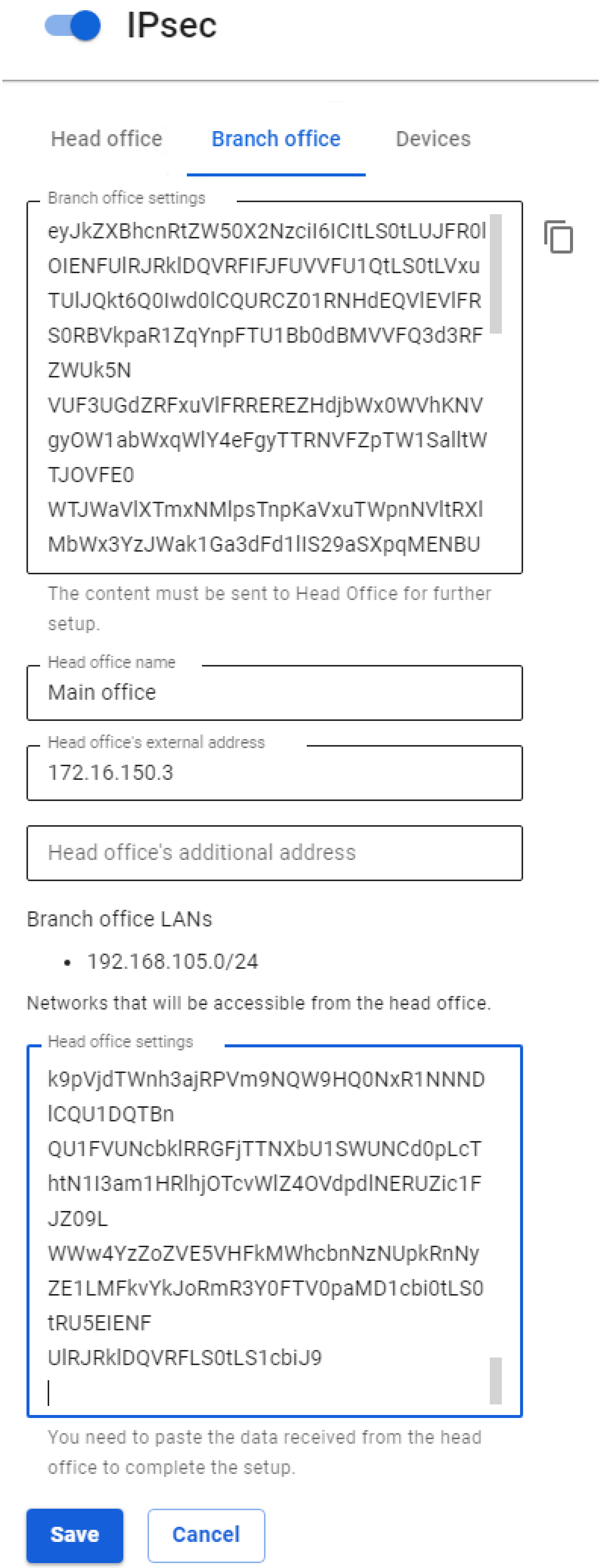
Content must be sent to the branch office to complete the setup.

Step 3. Final setup of the Branch

In order to complete the creation of a connection on SafeUTM which will act as a Branch it is necessary to perform the following settings in the web interface of this UTM:

1. Open section **Services -> IPsec -> Branch office**.
2. Select the desired head office and click **Edit**.
3. Insert into the **Head Office Settings** field the settings text received from the Head Office

during **step 2**.



Branch office settings

eyJkZXBhcnRtZW50X2NzciI6ICItLS0tLUJFR0l
OIENFUlRJRklDQVRFIFJFUVVFU1QtLS0tLVxu
TUlJQkt6Q0Iwd0lCQURCZ01RNHdEQVlEVlFR
S0RBVkpaR1ZqYnpFTU1Bb0dBMVVFQ3d3RF
ZWUk5N
VUF3UGdZRFxuVlFRREREZHdjbWx0WVhKNV
gyOW1abWxqWlY4eFgyTTRNVFZpTW1SalltW
TJOVFE0
WTJWaVlXTmxNMlpsTnpKaVxuTWpnNVltRXl
MbWx3YzJWak1Ga3dFd1lIS29aSXpqMENBU

The content must be sent to Head Office for further setup.

Head office name: Main office

Head office's external address: 172.16.150.3

Head office's additional address

Branch office LANs

- 192.168.105.0/24

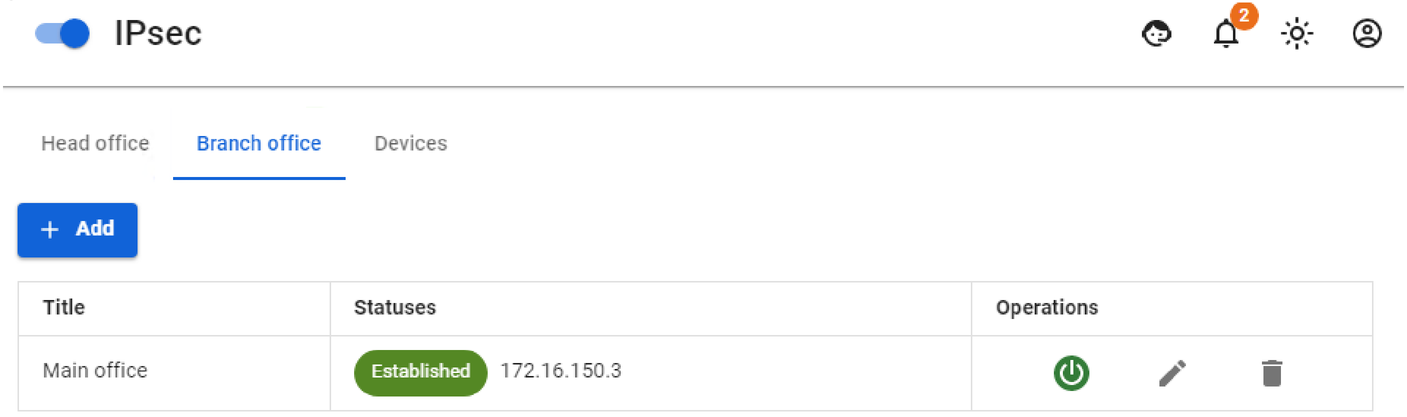
Networks that will be accessible from the head office.

Head office settings

k9pVjdTWnh3ajRPVm9NQW9HQ0NxR1NNND
lCQU1DQTBn
QU1FVUNcbklRRGFjTTNXbU1SWUNCd0pLcT
htN1l3am1HRlhjOTcvWlZ4OVdpdlNERUZic1F
JZ09L
WWw4YzZoZVE5VHFkMWhcbnNzNUpkRnNy
ZE1LMFkvYkJoRmR3Y0FTV0paMD1cbi0tLS0
tRU5EIENF
UlRJRklDQVRFLS0tLS1cbiJ9

You need to paste the data received from the head office to complete the setup.

4. Click **Save**.
5. Open section **Services -> IPsec -> Branch office** on UTM acting as a Branch and section **Services -> IPsec -> Head Office** on UTM acting as the Head Office and make sure that the connection to the Head Office is established. The confirmation **Established** should appear in a green frame.



Title	Statuses	Operations
Main office	Established 172.16.150.3	

Routing of additional networks located behind the router in the local UTM network through an IPsec tunnel.

In order to configure the routing of networks located behind the router in the local UTM network, it is necessary to create a route to an additional network via the router's IP on SafeUTM (UTM, router and target host will be on the same network).

- If SafeUTM is behind NAT, then in order to work with IPsec you need to forward ports 500 and 4500 UDP.
- When installing an IPsec tunnel between SafeUTM servers (Branch and Head Office), 256-bit AES encryption is always used, as it is common and very reliable.

Revision #5
Created 27 August 2022 14:02:06 by Val Redman
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