

Implementacja i testy skalowalności systemu wideokonferencyjnego

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Wdrożenie Jitsi

Konfiguracja Jitsi

jitsi-values.yaml

```
1  publicURL: "jitsi.google.sex.pl"
2
3  jvb:
4    useHostPort: true
5    stunServers: 'turn:158.101.210.198:3478?transport=tcp,turn:158.101.210.198:3478?transport=udp'
6    publicIPs:
7      - '158.101.210.198'
8    service:
9      enabled: true
10     type: ClusterIP
11     externalTrafficPolicy: ""
12
13  prosody:
14    transcriber:
15      enabled: false
16    extraEnvFrom:
17      - secretRef:
18        name: jitsi-turn-secret
19
20  web:
21    extraEnvFrom:
22      - secretRef:
23        name: jitsi-turn-secret
```

Uruchomienie Jitsi

```
turn-secret.yaml
1  apiVersion: v1
2  kind: Secret
3  metadata:
4    name: jitsi-turn-secret
5  type: Opaque
6  stringData:
7    TURN_CREDENTIALS: "abcdefghijklmnopqrstu012345"
8    TURN_HOST: "158.101.210.198"
9    TURN_PORT: "3478"

1  # postawienie samego jitsi
2
3  kubectl apply -f turn-secret.yaml
4  helm install myjitsi jitsi/jitsi-meet --values values.yaml
```

Udostępnienie Jitsi bez publicznego adresu IP

Pangolin - Tworzenie zdalnego dostępu

Organization
main

Server Admin

GENERAL

Sites

Resources

Clients Beta

Domains

ACCESS CONTROL

Users

Roles

Invitations

Shareable Links

ORGANIZATION

API Keys

Settings

Buy Supporter Key

Community Edition

v1.1.1 id

PANGOLIN

Dark D

Create Site

Follow the steps below to create and connect a new site

See All Sites

Site Information

Name

Kls

Site Address

100.90.128.4

Specify the IP address of the host for clients to connect to. This is the internal address of the site in the Pangolin network for clients to address. Must fall within the Org subnet.

Tunnel Type

Determine how you want to connect to your site

Newt Tunnel (Recommended)
Easiest way to create an endpoint into your network. No extra setup.

Basic WireGuard
Use any WireGuard client to establish a tunnel. Manual NAT setup required.

Local
Local resources only. No tunneling.

Newt Credentials

This is how Newt will authenticate with the server

Newt Endpoint
https://pangolin.google.sex.pl

Newt ID
abcdelghjklmnop

Newt Secret Key
abcdelghjklmnopqrstuvwxyz0123456789abcdelghjkl

Save Your Credentials


You will only be able to see this once. Make sure to copy it to a secure place.

Install Newt

Pangolin - Uruchomienie zdalnego dostępu

 newt-cred.env

```
1 PANGOLIN_ENDPOINT=https://pangolin.google.sex.pl
2 NEWT_ID=abcdefghijklmnp
3 NEWT_SECRET=abcdefghijklmnpqrstuvwxyz0123456789abcdefghijklmn
4
```

 values-newt.yaml

```
1 newtInstances:
2   - name: main
3     enabled: true
4     auth:
5       existingSecretName: newt-cred
6       keys:
7         endpointKey: PANGOLIN_ENDPOINT
8         idKey: NEWT_ID
9         secretKey: NEWT_SECRET
```

```
6 # dodanie repo
```

```
7
```

```
8 helm repo add fossorial https://charts.fossorial.io
```

Pangolin - Zdalny Dostęp

Manage Sites

Allow connectivity to your network through secure tunnels

[Refresh](#)[+ Add Site](#)

| Name ↕ | Online ↕ | Site ↕ | Data In ↕ | Data Out ↕ | Connection Type ↕ | Exit Node ↕ | Address ↕ | |
|---------------|----------|-----------------------|-----------|------------|-------------------|--------------------|-------------|----------------------------|
| Local | ● Online | lorem-ipsum-dolor | 21.37 GB | 21.37 GB | Newt | Exit Node /1f9o+o2 | 1.2.3.4 | ... Edit → |
| Local-No-Newt | - | sit-amet-consectetur | - | - | Local | - | 5.6.7.8 | ... Edit → |
| K8s | ● Online | adipiscing-elit-donec | 21.37 GB | 21.37 GB | Newt v1.5.0 ⓘ | Exit Node /1f9o+o2 | 9.10.11.12 | ... Edit → |
| TrueNAS | ● Online | blandit-turpis-nulla | 21.37 GB | 21.37 GB | Newt v1.5.2 ⓘ | Exit Node /1f9o+o2 | 13.14.15.16 | ... Edit → |

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Pangolin - Tworzenie Zasobu

Create Resource

[See All Resources](#)

Follow the steps below to create a new resource

Resource Information

Name

This is the display name for the resource.

Resource Type

Determine how you want to access your resource

☒ **HTTPS Resource**

Proxy requests to your app over HTTPS using a subdomain or base domain.

☐ **Raw TCP/UDP Resource**

Proxy requests to your app over TCP/UDP using a port number. This only works when sites are connected to nodes.

HTTPS Settings

Configure how your resource will be accessed over HTTPS

Subdomain

Base Domain

Targets Configuration

Set up targets to route traffic to your backend services

Address

Health Check

Enabled

TrueNAS

http

://

myjitsi-jitsi-meet-web.default.svc.cluster.local

: 80

Unknown



Delete

Pangolin - SSL + Wyłączenie SSO


Jitsi Settings

Configure the settings on your resource

Authentication

 Not Protected

URL

https://jitsi.google.sex.pl 

Visibility

Enabled

General

Proxy

Authentication

Rules

Users & Roles

Configure which users and roles can visit this resource

☒ Use Platform SSO

Save Users & Roles



PANGOLIN

Set up targets to route traffic to your backend services

Address

MH-K8s



http



://

myjitsi-jitsi-meet-web.default.svc.cluster.local

:

80

+ Add Target

Additional Proxy Settings

Configure how your resource handles proxy settings


Tailscale - Czemu wyłączyć SSO?

Auth - Pangolin x +

< > ↺ pangolin.google.sex.pl/auth/login 🔒 | 🏠 📄 🗨️ ☰

🔊 PG 🌐 Dokumentacja 🧑‍🔬 CIVI 📖 Scholar 🌐 WorldCat 📖 Library Genesis 🌐 PDF24

⚙️ System

**PANGOLIN**


Log in to get started

Email

Password

Forgot your password?

Log in

 Continue with security key

OR CONTINUE WITH

Authentik

Don't have an account? [Sign up](#)

Tailscale - Pliki konfiguracyjne

```
tailscale-secret.yaml
1  apiVersion: v1
2  kind: Secret
3  metadata:
4    name: tailscale-auth
5  stringData:
6    TS_AUTHKEY: tskey-auth-abcdefghijklmnopqrstuvwxyz1234567890abcdefghijklmnopqrstuvwxyz
```

Tailscale - pliki konfiguracyjne cz. 2

```
tailscale-rbac.yaml
1  apiVersion: v1
2  kind: ServiceAccount
3  metadata:
4    name: tailscale
5
6  ---
7
8  apiVersion: rbac.authorization.k8s.io/v1
9  kind: Role
10 metadata:
11   name: tailscale
12 rules:
13   - apiGroups: [""]
14     resourceNames: ["tailscale-auth"]
15     resources: ["secrets"]
16     verbs: ["get", "update", "patch"]
17
18   ---
19
20 apiVersion: rbac.authorization.k8s.io/v1
21 kind: RoleBinding
22 metadata:
23   name: tailscale
24 subjects:
25   - kind: ServiceAccount
26     name: tailscale
27 roleRef:
28   kind: Role
```

Tailscale - Pliki konfiguracyjne cz. 3

 tailscale-proxy.yaml

```
1  apiVersion: v1
2  kind: Pod
3  metadata:
4    name: tailscale-proxy
5  spec:
6    serviceAccountName: tailscale
7    initContainers:
8      - name: sysctl
9        image: busybox:latest
10       securityContext:
11         privileged: true
12         command: ["/bin/sh"]
13         args:
14           - -c
15           - sysctl -w net.ipv4.ip_forward=1 net.ipv6.conf.all.forwarding=1
16   containers:
17     - name: tailscale
18       image: ghcr.io/tailscale/tailscale:latest
19       env:
20         - name: TS_KUBE_SECRET
21           value: tailscale-auth
22         - name: TS_AUTHKEY
23           valueFrom:
24             secretKeyRef:
25               name: tailscale-auth
26               key: TS_AUTHKEY
27         - name: TS_USERSPACE
28           value: "false"
29         - name: TS_DEST_IP
30           value: 10.108.40.240
31       securityContext:
32         privileged: true
```

Tailscale - Dlaczego Takie IP?

```
root@jitsi-1:/home/student/tailscale# kubectl get services
```




| NAME | TYPE | CLUSTER-IP | EXTERNAL-IP | PORT(S) | AGE |
|--------------------------------|-----------|----------------|-------------|--|-----|
| kubernetes | ClusterIP | 10.244.0.1 | <none> | 443/TCP | 26d |
| myjitsi-jitsi-meet-jvb | ClusterIP | 10.108.40.240 | <none> | 10000/UDP | 31h |
| myjitsi-jitsi-meet-jvb-metrics | ClusterIP | 10.108.15.188 | <none> | 9888/TCP | 31h |
| myjitsi-jitsi-meet-web | ClusterIP | 10.106.197.43 | <none> | 80/TCP | 31h |
| myjitsi-prosody | ClusterIP | 10.108.213.244 | <none> | 5280/TCP,5281/TCP,5347/TCP,5222/TCP,5269/TCP | 31h |

```
root@jitsi-1:/home/student/tailscale#
```

Tailscale - uruchomienie

```
19 # dodanie repo
20
21 helm repo add tailscale https://pkgs.tailscale.com/helmcharts
22 helm repo update
23
24 # postawienie tailscale
25
26 kubectl apply -f tailscale-secret.yaml
27 kubectl apply -f tailscale-rbac.yaml
28 kubectl apply -f tailscale-proxy.yaml
```


Tailscale - Przekierowanie z VPS

| MACHINE | ADDRESSES  | VERSION | LAST SEEN | |
|-----------------|---|-------------------------------------|---|-----|
| tailscale-proxy | 100.105.219.104  | 1.90.9 Linux 6.12.48+deb13-amd64 |  Connected | ... |

```
30 # routing w iptables
31
32 iptables -t nat -A PREROUTING -p udp --dport 10000 -j DNAT --to-destination 100.105.219.104:10000
33 iptables -t nat -A POSTROUTING -j MASQUERADE
```

TURN - konfiguracja



turnserver.conf

```
1  realm=google.sex.pl
2  external-ip=158.101.210.198
3  fingerprint
4  lt-cred-mech
5
6  static-auth-secret=abcdefghijklmnopqrstuvwxyz012345
```

TURN - docker-compose

 docker-compose.yaml

▷ Run All Services

1 **services:**

▷ Run Service

2 **coturn:**

3 **image:** [coturn/coturn:4.6.3](#) # pin to the current stable tag

4 **container_name:** coturn

5 **restart:** unless-stopped

6 **ports:**

7 # STUN/TURN

8 - "3478:3478"

9 - "3478:3478/udp"

10 # TLS-TURN

11 - "5349:5349"

12 - "5349:5349/udp"

13 # RTP/RTCP relays (adjust range if you need fewer ports)

14 - "49000-49020:49000-49020/udp"

15 **environment:**

16 # Secure long-term credentials (generate once; keep secret)

17 **STATIC_AUTH_SECRET:** "\${TURN_STATIC_AUTH_SECRET}"

18 **EXTERNAL_IP:** "158.101.210.198"

19 **volumes:**

20 # Bind your custom conf + persistent database & logs

21 - "/gdzie/tylko/chcesz/coturn/turnserver.conf:/etc/coturn/turnserver.conf:ro"

22 - "coturn-data:/var/lib/coturn"

23 - "coturn-logs:/var/log"

24 # Use host networking if you prefer not to publish individual ports

25 # **network_mode:** "host"

26

27 **volumes:**

28 **coturn_data:**

Skalowanie jvb

Co zostało dodane do values.yaml?

- Aby przeskalować jvb, następujące wartości zostały dodane:

jvb:

```
## Set JVB instance count:
```

```
replicaCount: 2
```

```
## Expose JVB interface port to the outside world
```

```
# only on nodes that actually have it:
```

```
useHostPort: true
```

```
## Make every JVB pod announce its Node's external
```

```
# IP address and nothing more:
```

```
useNodeIP: true
```

octo:

```
## Enable OCTO support for both JVB and Jicofo:
```

```
enabled: true
```

OCTO - co to?

- OCTO to mechanizm multi-bridge routing, który pozwala rozproszyć uczestników jednego spotkania między wiele instancji Jitsi Videobridge (jvb).
- Bez OCTO każde spotkanie musi być obsługiwane przez jeden jvb; gdy osiągnie limit CPU/bitrata - jakość spada.
- Z OCTO spotkanie może używać kilku jvb jednocześnie.

Przed skalowaniem jvb

Context: kubernetes-admin@kubernetes [RW]

Cluster: kubernetes

User: kubernetes-admin

K9s Rev: v0.50.16

K8s Rev: v1.32.9

CPU: n/a

MEM: n/a

<0> all

<1> monitoring

<2> default

<a> Attach

<ctrl-d> Delete

<d> Describe

<e> Edit

<?> Help

<shift-j> Jump Owner



pods(default) [4]

| NAME | PF | READY | STATUS | RESTARTS | IP | NODE | AGE |
|--|----|-------|---------|----------|--------------|---------|-------|
| myjitsi-jitsi-meet-jicofo-6fff848dfc-hf5d8 | ● | 1/1 | Running | 0 | 10.2.161.95 | jitsi-2 | 5d21h |
| myjitsi-jitsi-meet-jvb-5f599db5c8-74t8z | ● | 2/2 | Running | 0 | 10.2.161.86 | jitsi-2 | 5d21h |
| myjitsi-jitsi-meet-web-86c6d94bf-bxmr4 | ● | 1/1 | Running | 0 | 10.2.161.69 | jitsi-2 | 5d21h |
| myjitsi-prosody-0 | ● | 1/1 | Running | 0 | 10.2.161.107 | jitsi-2 | 2d16h |

Po skalowaniu jvb

Context: kubernetes-admin@kubernetes [RW]
Cluster: kubernetes
User: kubernetes-admin
K9s Rev: v0.50.16
K8s Rev: v1.32.9
CPU: n/a
MEM: n/a

<0> all
<1> monitoring
<2> default

<a> A_
<ctrl-d> De|
<d> De|
<e> Ed|
<?> He|
<shift-j> Ju



pods(default) [6]

| NAME | PF | READY | STATUS | RESTARTS | IP | NODE | AGE |
|---|----|-------|---------|----------|--------------|---------|-----|
| myjitsi-jitsi-meet-jicofo-d4978ffdb-w2nkn | ● | 1/1 | Running | 0 | 10.2.161.105 | jitsi-2 | 22h |
| myjitsi-jitsi-meet-jvb-778dfb5469-c74sx | ● | 2/2 | Running | 0 | 10.2.161.75 | jitsi-2 | 22h |
| myjitsi-jitsi-meet-jvb-778dfb5469-ghklw | ● | 2/2 | Running | 0 | 10.2.63.188 | itsi-3 | 22h |
| myjitsi-jitsi-meet-web-86c6d94bf-82fsp | ● | 1/1 | Running | 0 | 10.2.161.68 | jitsi-2 | 22h |
| myjitsi-prosody-0 | ● | 1/1 | Running | 0 | 10.2.63.190 | itsi-3 | 22h |
| tailscale-proxy | ● | 1/1 | Running | 0 | 10.2.161.79 | jitsi-2 | 22h |

Jak to wygląda w logach jicofo

```
jicofo 2025-11-29 11:49:51.313 FIMR: [279] [room=jvbberweryinternal-muc-meet.jitsi] ChatRoomImpl.doProcessPresence@679: Presence received <presence xmlns='jabber:client' xml:lang='en-US' to='focus@auth.meet.jitsi/focus' from='jvbberweryinternal-muc-meet.jitsi@jitsi-litsi-meet-jvb-7780fb5409' priority='0'>stats xmlns='http://jitsi.org/protocol/colibri'<stat name='incoming_loss' value='0' /><stat name='outgoing_loss' value='0' /><stat name='overall_loss' value='0' /><stat name='endpoints_with_high_outgoing_loss' value='0' /><stat name='local_active_endpoints' value='0' /><stat name='bit_rate_download' value='0' /><stat name='bit_rate_upload' value='0' /><stat name='packet_rate_download' value='0' /><stat name='packet_rate_upload' value='0' /><stat name='rtt_aggregate' value='0' /><stat name='num_eps_overseen_ding' value='0' /><stat name='octo_conferences' value='0' /><stat name='inactive_conferences' value='0' /><stat name='p2p_conferences' value='0' /><stat name='endpoints' value='0' /><stat name='participants' value='0' /><stat name='receive_only_endpoints' value='0' /><stat name='inactive_endpoints' value='0' /><stat name='octo_endpoints' value='0' /><stat name='endpoints_sending_audio' value='0' /><stat name='endpoints_sending_video' value='0' /><stat name='largest_conference' value='0' /><stat name='octo_receive_bitrate' value='0' /><stat name='octo_receive_packet_rate' value='0' /><stat name='octo_send_packet_rate' value='0' /><stat name='endpoints_with_suspended_sources' value='0' /><stat name='total_conferences_created' value='0' /><stat name='total_conferences_completed' value='0' /><stat name='total_conference_seconds' value='643' /><stat name='total_participants' value='0' /><stat name='total_visitors' value='0' /><stat name='num_eps_no_mq_transport_after_delay' value='0' /><stat name='total_relays' value='11' /><stat name='num_relays_no_mq_transport_after_delay' value='0' /><stat name='total_keyframes_received' value='0' /><stat name='total_layering_changes_received' value='0' /><stat name='total_video_stream_allseconds_received' value='0' /><stat name='stress_level' value='0.0011888992607794098' /><stat name='conferences' value='0' /><stat name='visitors' value='0' /><stat name='local_endpoints' value='0' /><stat name='total_data_channel_messages_received' value='115' /><stat name='total_data_channel_messages_sent' value='109' /><stat name='total_colibri_web_socket_messages_received' value='0' /><stat name='total_colibri_web_socket_messages_sent' value='0' /><stat name='total_bytes_received' value='2947828' /><stat name='dtls_failed_endpoints' value='0' /><stat name='total_bytes_sent' value='53368' /><stat name='total_packets_received' value='26324' /><stat name='total_packets_sent' value='105' /><stat name='total_bytes_received_octo' value='61904' /><stat name='total_bytes_sent_octo' value='2793987' /><stat name='total_packets_received_octo' value='994' /><stat name='total_packets_sent_octo' value='24728' /><stat name='total_dominant_speaker_changes' value='1' /><stat name='preemptive_kfr_sent' value='0' /><stat name='preemptive_kfr_suppressed' value='0' /><stat name='total_ice_failed' value='0' /><stat name='total_ice_succeeded' value='12' /><stat name='total_ice_succeeded_relayed' value='0' /><stat name='average_participant_stress' value='0.01' /><stat name='threads' value='52' /><stat name='graceful_shutdown' value='false' /><stat name='shutting_down' value='false' /><stat name='drain' value='false' /><stat name='current_timestamp' value='2025-11-29 10:49:51.388' /><stat name='relay_id' value='10.2.63.188' /><stat name='muc_clients_configured' value='1' /><stat name='muc_clients_connected' value='1' /><stat name='muc_configured' value='1' /><stat name='muc_joined' value='1' /><stat name='endpoints_with_spurious_remb' value='0' /><stat name='healthy' value='true' /><stat name='endpoints_disconnected' value='0' /><stat name='endpoints_reconnected' value='0' /><stat name='version' value='2.3.259-g22868ff7d' /><stat name='region' value='all' /></stats>< xmlns='http://jabber.org/protocol/caps' hash='sha-1' node='https://igniterealtime.org/projects/smack' ver='V78620r1QfGmPE0stM/hyxw' /><occupant-id xmlns='urn:xmpp:occupant-id' id='Yb2DQlnu1296-022nJS86-Nq-qvarE1XNmu1P2K78' /><occupant-id> xmlns='http://jabber.org/protocol/muc#user'<item affiliation='owner' jid='jvb@auth.meet.jitsi/1E4W9Pv11b' role='moderator' /></item></x>/presence
```

```
jicofo 2025-11-29 11:49:52.163 FIMR: [279] [room=jvbberweryinternal-muc-meet.jitsi] ChatRoomImpl.doProcessPresence@679: Presence received <presence xmlns='jabber:client' xml:lang='en-US' to='focus@auth.meet.jitsi/focus' from='jvbberweryinternal-muc-meet.jitsi@jitsi-litsi-meet-jvb-7780fb5409'>stats xmlns='http://jitsi.org/protocol/colibri'<stat name='incoming_loss' value='0' /><stat name='outgoing_loss' value='0' /><stat name='overall_loss' value='0' /><stat name='endpoints_with_high_outgoing_loss' value='0' /><stat name='local_active_endpoints' value='0' /><stat name='bit_rate_download' value='0' /><stat name='bit_rate_upload' value='0' /><stat name='packet_rate_download' value='0' /><stat name='packet_rate_upload' value='0' /><stat name='rtt_aggregate' value='0' /><stat name='num_eps_overseen_ding' value='0' /><stat name='octo_conferences' value='0' /><stat name='inactive_conferences' value='0' /><stat name='p2p_conferences' value='0' /><stat name='endpoints' value='0' /><stat name='participants' value='0' /><stat name='receive_only_endpoints' value='0' /><stat name='inactive_endpoints' value='0' /><stat name='octo_endpoints' value='0' /><stat name='endpoints_sending_audio' value='0' /><stat name='endpoints_sending_video' value='0' /><stat name='largest_conference' value='0' /><stat name='octo_receive_bitrate' value='0' /><stat name='octo_receive_packet_rate' value='0' /><stat name='octo_send_packet_rate' value='0' /><stat name='endpoints_with_suspended_sources' value='0' /><stat name='total_conferences_created' value='0' /><stat name='total_conferences_completed' value='0' /><stat name='total_conference_seconds' value='613' /><stat name='total_participants' value='0' /><stat name='total_visitors' value='0' /><stat name='num_eps_no_mq_transport_after_delay' value='0' /><stat name='total_relays' value='11' /><stat name='num_relays_no_mq_transport_after_delay' value='0' /><stat name='total_keyframes_received' value='1' /><stat name='total_layering_changes_received' value='1' /><stat name='total_video_stream_allseconds_received' value='63' /><stat name='stress_level' value='5.18058598883715E-4' /><stat name='conferences' value='0' /><stat name='visitors' value='0' /><stat name='local_endpoints' value='0' /><stat name='total_data_channel_messages_received' value='113' /><stat name='total_data_channel_messages_sent' value='159' /><stat name='total_colibri_web_socket_messages_received' value='0' /><stat name='total_colibri_web_socket_messages_sent' value='0' /><stat name='total_bytes_received' value='32798' /><stat name='dtls_failed_endpoints' value='0' /><stat name='total_bytes_sent' value='2793987' /><stat name='total_packets_received' value='692' /><stat name='total_packets_sent' value='24728' /><stat name='total_bytes_received_octo' value='24728' /><stat name='total_bytes_sent_octo' value='994' /><stat name='total_dominant_speaker_changes' value='1' /><stat name='preemptive_kfr_sent' value='0' /><stat name='preemptive_kfr_suppressed' value='0' /><stat name='total_ice_failed' value='0' /><stat name='total_ice_succeeded' value='12' /><stat name='total_ice_succeeded_relayed' value='0' /><stat name='average_participant_stress' value='0' /><stat name='threads' value='54' /><stat name='graceful_shutdown' value='false' /><stat name='shutting_down' value='false' /><stat name='drain' value='false' /><stat name='current_timestamp' value='2025-11-29 10:49:52.155' /><stat name='relay_id' value='10.2.161.75' /><stat name='muc_clients_configured' value='1' /><stat name='muc_clients_connected' value='1' /><stat name='muc_configured' value='1' /><stat name='muc_joined' value='1' /><stat name='endpoints_with_spurious_remb' value='0' /><stat name='healthy' value='true' /><stat name='endpoints_disconnected' value='0' /><stat name='endpoints_reconnected' value='0' /><stat name='version' value='2.3.259-g22868ff7d' /><stat name='region' value='all' /></stats>< xmlns='http://jabber.org/protocol/caps' hash='sha-1' node='https://igniterealtime.org/projects/smack' ver='V78620r1QfGmPE0stM/hyxw' /><occupant-id xmlns='urn:xmpp:occupant-id' id='Yb2DQlnu1296-022nJS86-Nq-qvarE1XNmu1P2K78' /><occupant-id> xmlns='http://jabber.org/protocol/muc#user'<item affiliation='owner' jid='jvb@auth.meet.jitsi/NV20B5r2CkZc' role='moderator' /></item></x>/presence
```

Przetestowanie skalowania

Szybkie przypomnienie

- Master Node - maszyna której rolą jest zarządzanie Kubernetes
- Worker Node - maszyna której rolą jest trzymać aplikacje (w podach) użytkownika

Kubernetes

Co się okazuje:

- Master nie obsługuje ruchu użytkowników.
- Master nie uruchamia Podów aplikacyjnych.
- Master nie streamuje danych, nie przetwarza requestów HTTP, nie robi downloadów/uploadów.

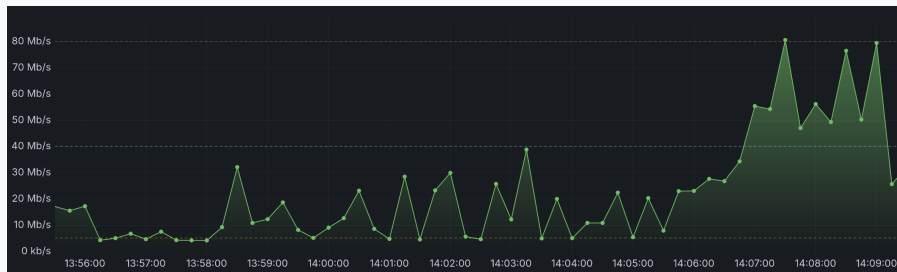
Kubernetes 2

Nawet jeśli master ma wolny internet (np. 1 Mbps), nie wpływa to na:

- prędkość odpowiedzi aplikacji,
- throughput,
- czas obsługi zapytań HTTP/Websocket/GRPC,
- szybkość pobierania danych przez aplikację.

Kubernetes 3

To w trakcie stress testowania jitsi, gdy master ma 128kbit/s:



Czemu nie użyliśmy narzędzi zewnętrznych

Webtcperf dla jitsi jest całkowicie zepsute.

No to teraz jak przetestować jitsi...

Jitsi bardzo dobrze się skaluje. Według oficjalnych pomiarów:

- Dla 1056 strumieni wideo z bitrate 550mbit/s zużycie CPU to tylko 20% przy czterordzeniowym procesorze.
- Dla 1056 strumieni wideo Zużycie RAMu nie przekroczyło 1.5GB

Czemu tak się dzieje?

Jitsi Videobridge jest tylko przekaźnikiem, bez żadnego transkodowania.
Nie tworzy skomplikowanych reguł, ani nie weryfikuje nic.

Działa trochę jak router.

Demo

Dziękujemy za uwagę