

Configuring Matrix RTC

See how to download example files from the helm chart [here](#).

Configuration

For a quick setup using the default settings, see the minimal fragment example in `charts/matrix-stack/ci/fragments/matrix-rtc-minimal.yaml`.

Credentials

Credentials are generated if possible. Alternatively they can either be provided inline in the values with `value` or if you have an existing `Secret` in the cluster in the same namespace you can use `secret` and `secretKey` to reference it.

If you don't want the chart to generate the secret, please refer to the following values fragments examples to see the secrets to configure.

Matrix RTC requires `livekitAuth.secret` secret:

- `charts/matrix-stack/ci/fragments/matrix-rtc-secrets-in-helm.yaml`
- `charts/matrix-stack/ci/fragments/matrix-rtc-secrets-externally.yaml`

SFU Networking

The matrix RTC SFU networking relies on NodePort by default. This means that the node must be reachable from outside of the cluster. Default ports are :

- RTC TCP: 30000/TCP
- RTC Muxed UDP : 30001/UDP

This can be configured using `matrixRTC.sfu.exposedServices`.

The default SFU networking relies on STUN to discover its public IP. It will automatically advertise it to the clients. The STUN servers can be configured in LiveKit configuration using the `additional` section :

```
matrixRTC:
  sfu:
    additional: |
      rtc:
        stun_servers:
          - ip:port
          - ip:port
          - ...
```

Accessing from behind a Load Balancer

If you are behind a Load Balancer, you must forward the ports from the Load Balancer to the nodes. The ports must be the same on the Load Balancer and the nodes. In this situation, the SFU cannot discover the Load Balancer public IP using the STUN method. Instead, you must use set the env variable `NODE_IP` :

```
matrixRTC:
  sfu:
    extraEnv:
      - name: NODE_IP
        value: 1.2.3.4

    additional: |
      rtc:
        use_external_ip: false
        # To workaround https://github.com/livekit/livekit/issues/2088
        # Any IP address is acceptable, it doesn't need to be a correct one,
        # it just needs to be present to get LiveKit to skip checking all local interfaces
        # We assign here a TEST-NET IP which is
        # overridden by the NODE_IP env var at runtime
        node_ip: 198.51.100.1
```

Additional SFU configuration

Additional Matrix RTC SFU configuration can be provided inline in the values as a string with

```
matrixRTC:
  sfu:
    additional:
      ## Either reference config to inject by:
```

1-custom-config:

config: |

admin_contact: "mailto:admin@example.com"

Either reference an existing `Secret` by:

2-custom-config:

configSecret: custom-matrix-rtc-config

configSecretKey: shared.yaml

Disabling Matrix RTC

Matrix RTC is enabled for deployment by default can be disabled with the following values

matrixRTC:

enabled: false

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