Open Cloud Mesh

Hot RFC, IETF 124 Montreal

Micke Nordin, Giuseppe Lo Presti, Mahdi Baghbani

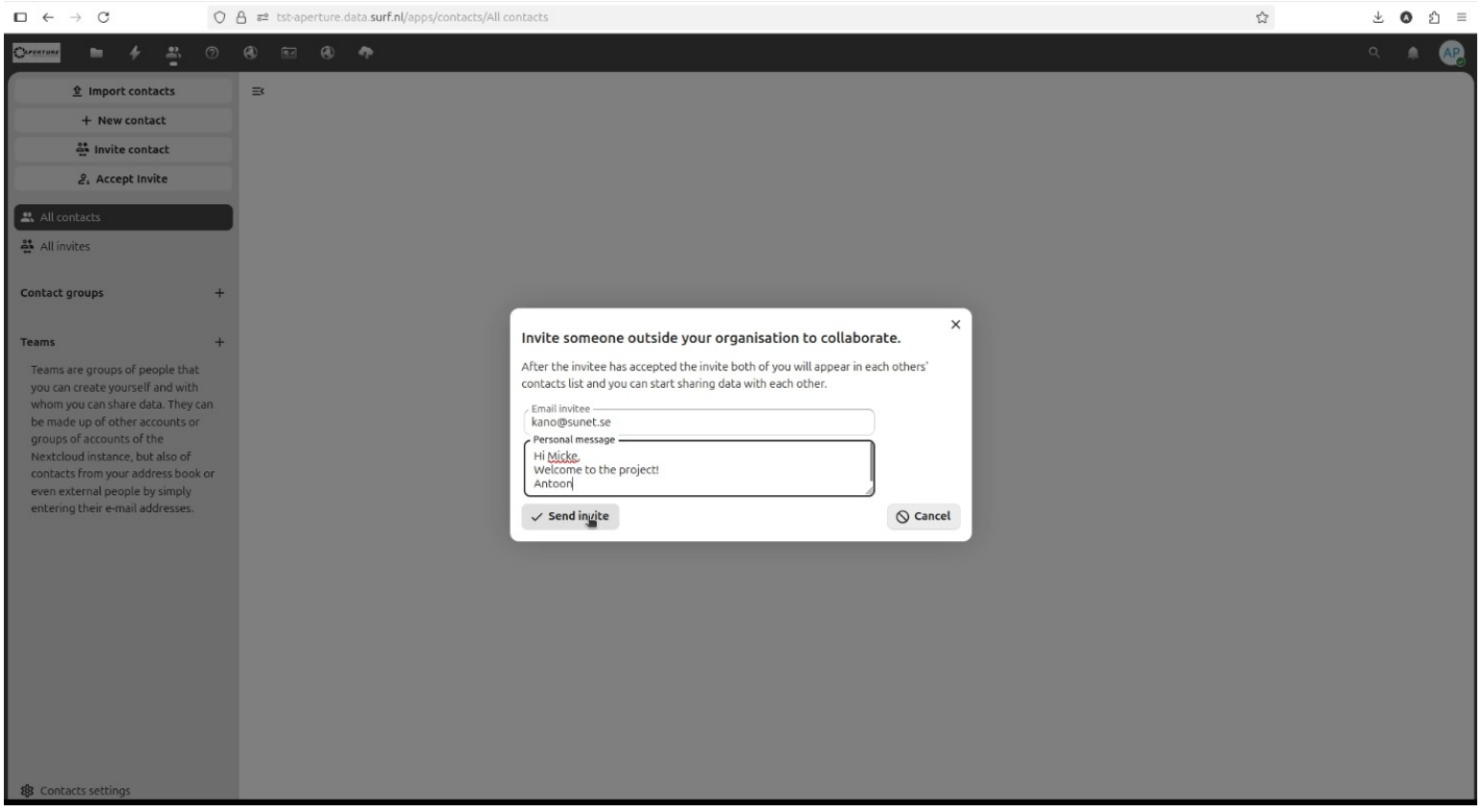
What is OCM?

We want to engage with the wider IETF community, particularly regarding security!

So that you know what you'll be collaborating on, here is a speed run of OCM.

Email us at: ocm@ietf.org

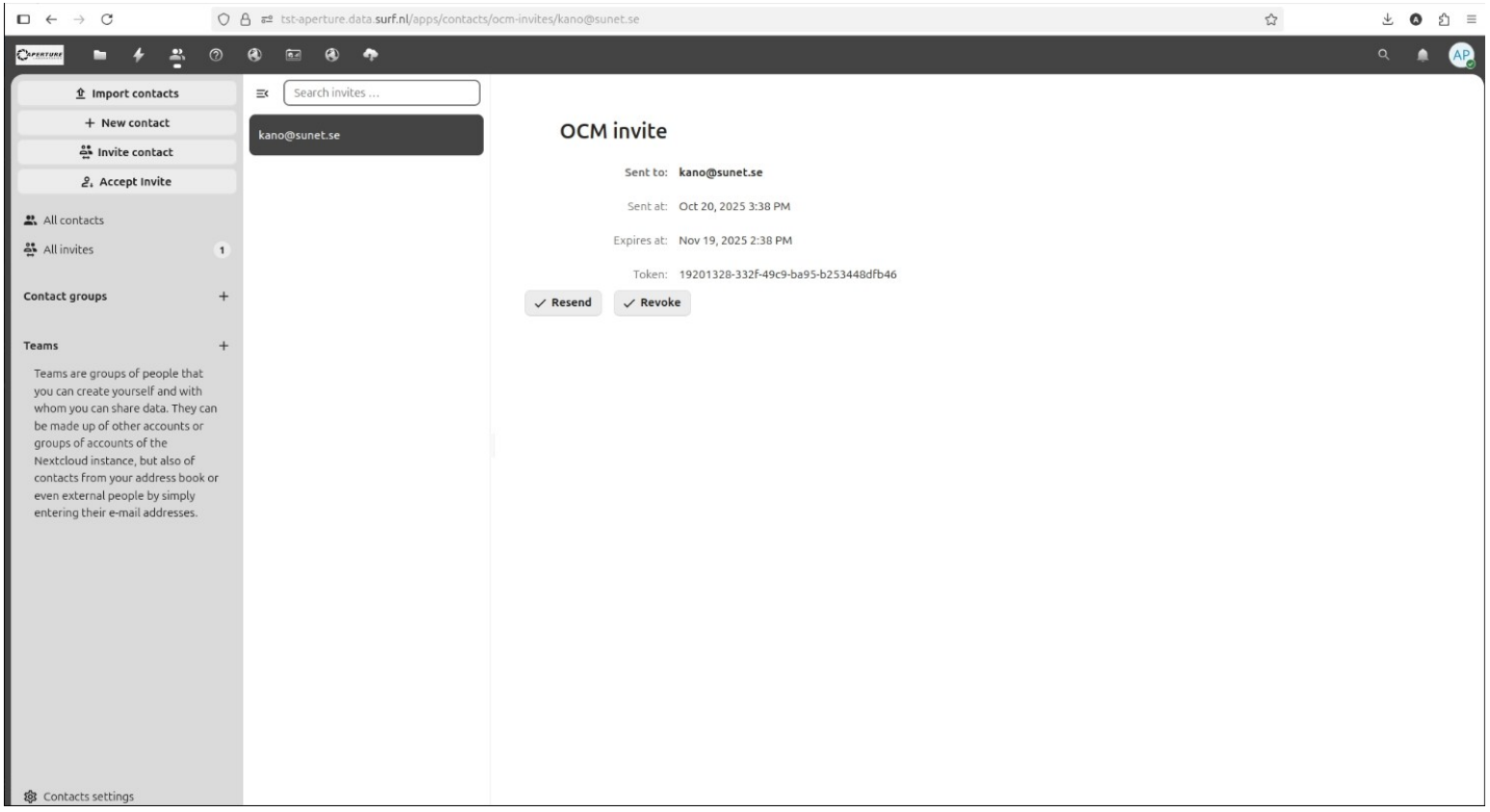
Invites



Link format,
sent via email:

SURF → SUNET

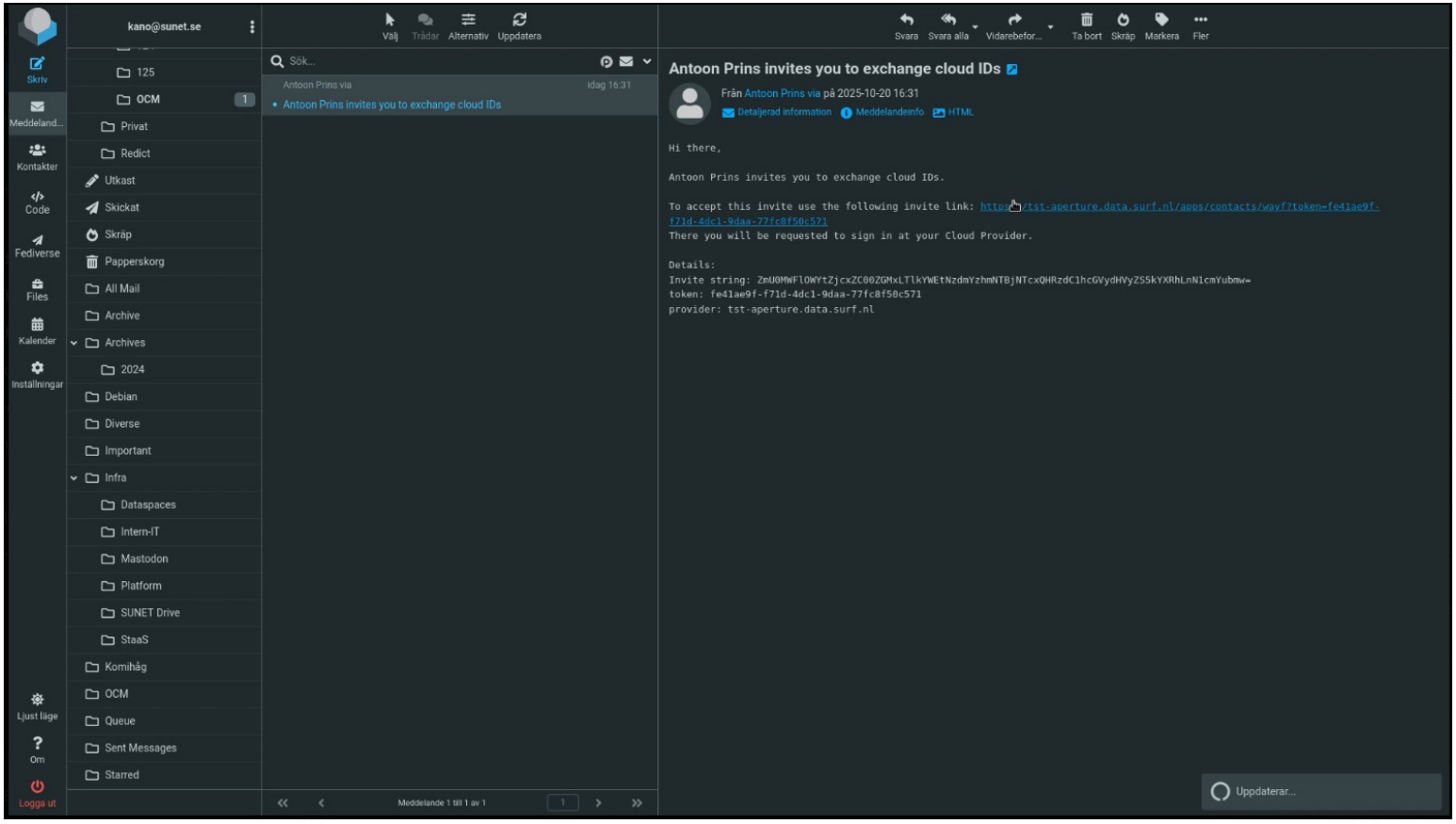
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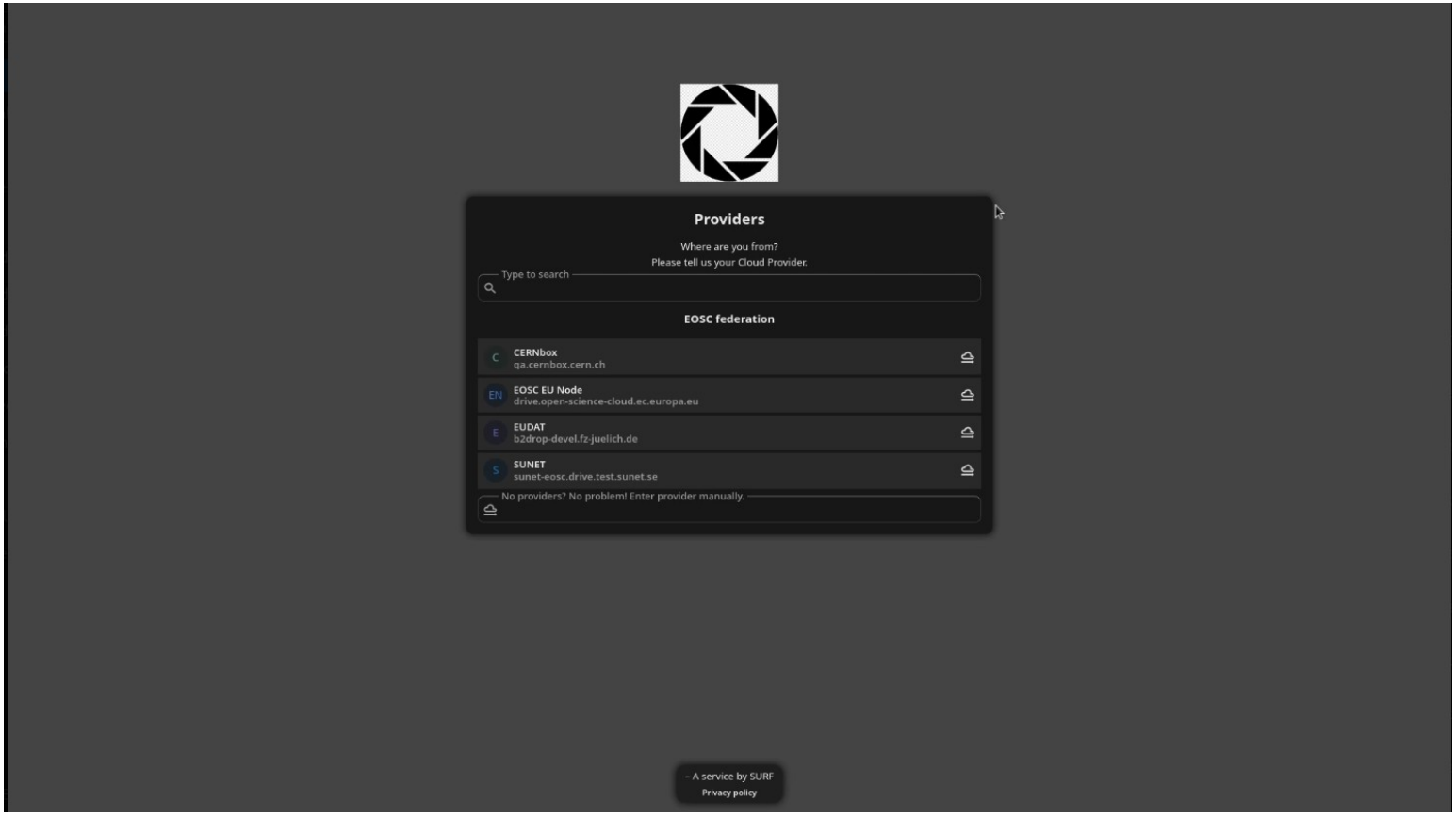
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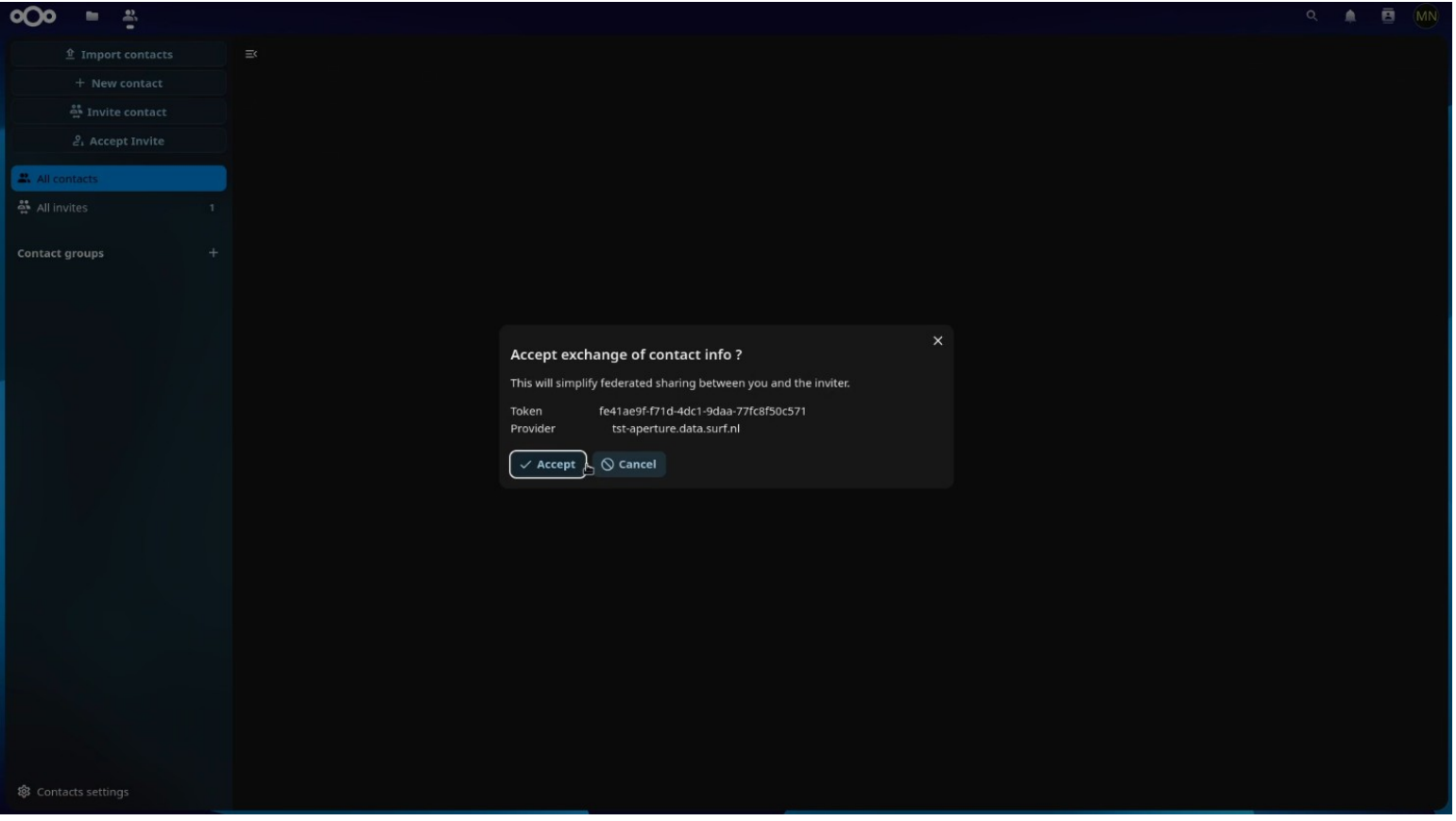
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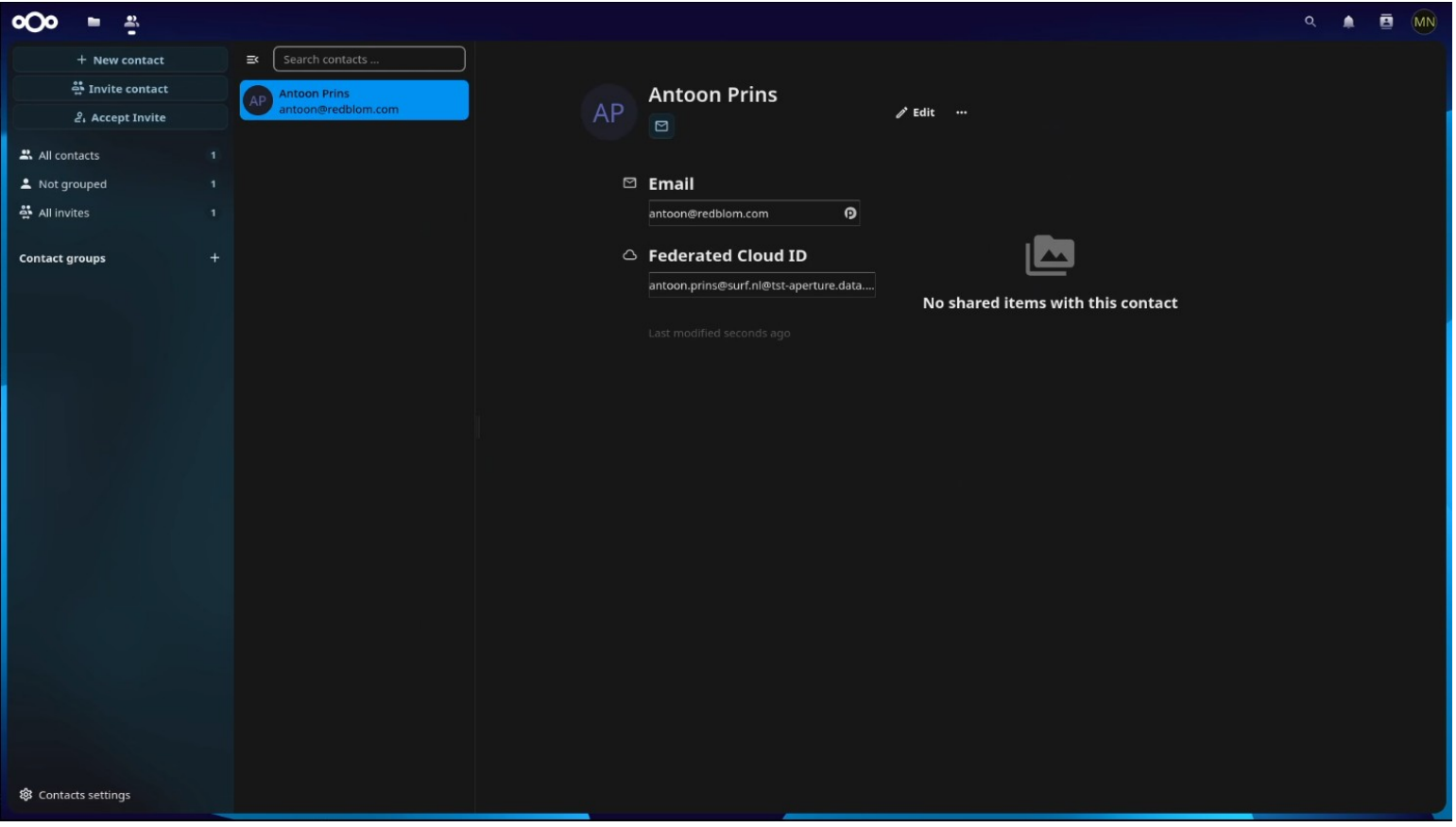
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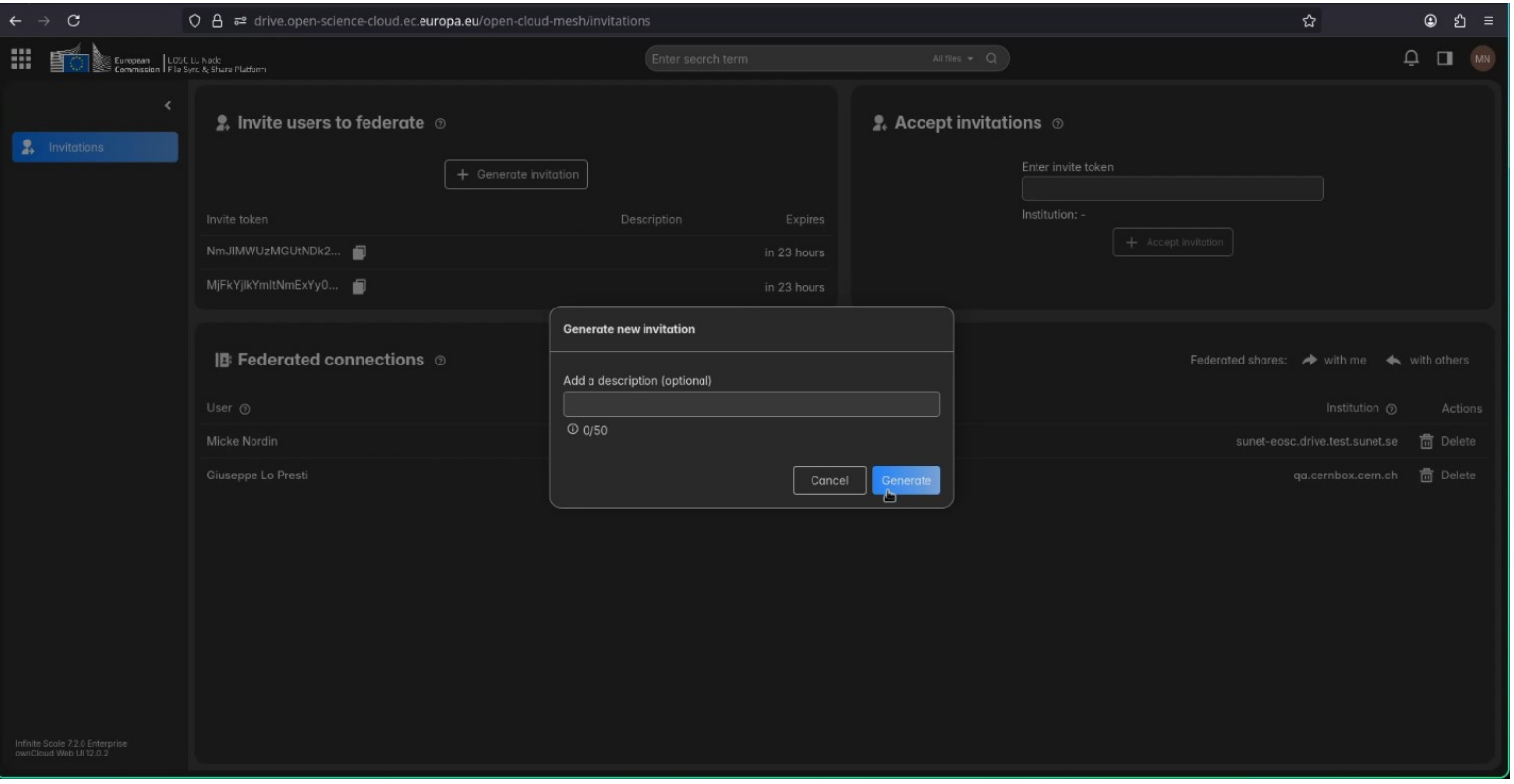
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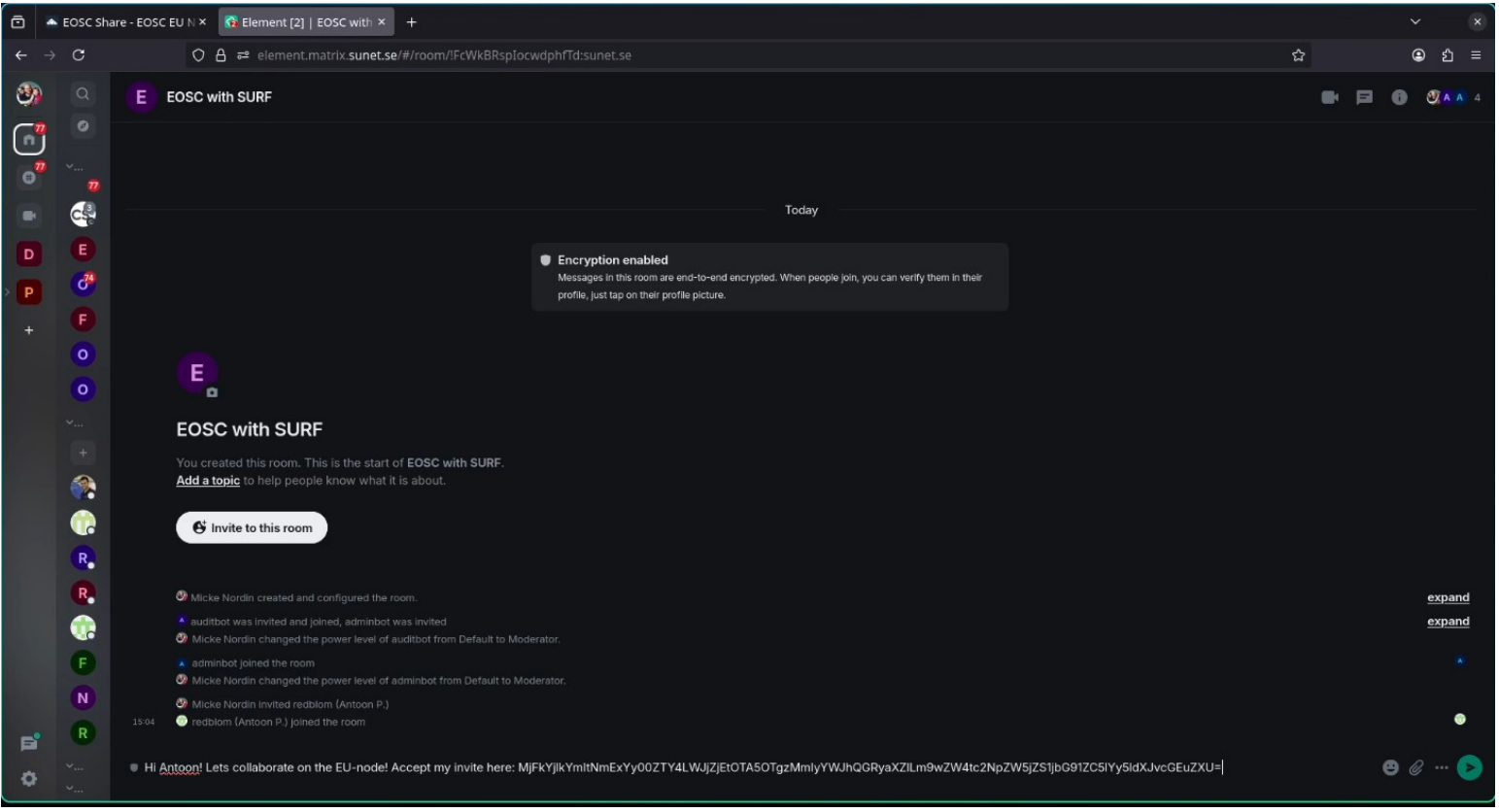
Invites



Invite string format, sent via matrix:

EU EOSC NODE → SURF

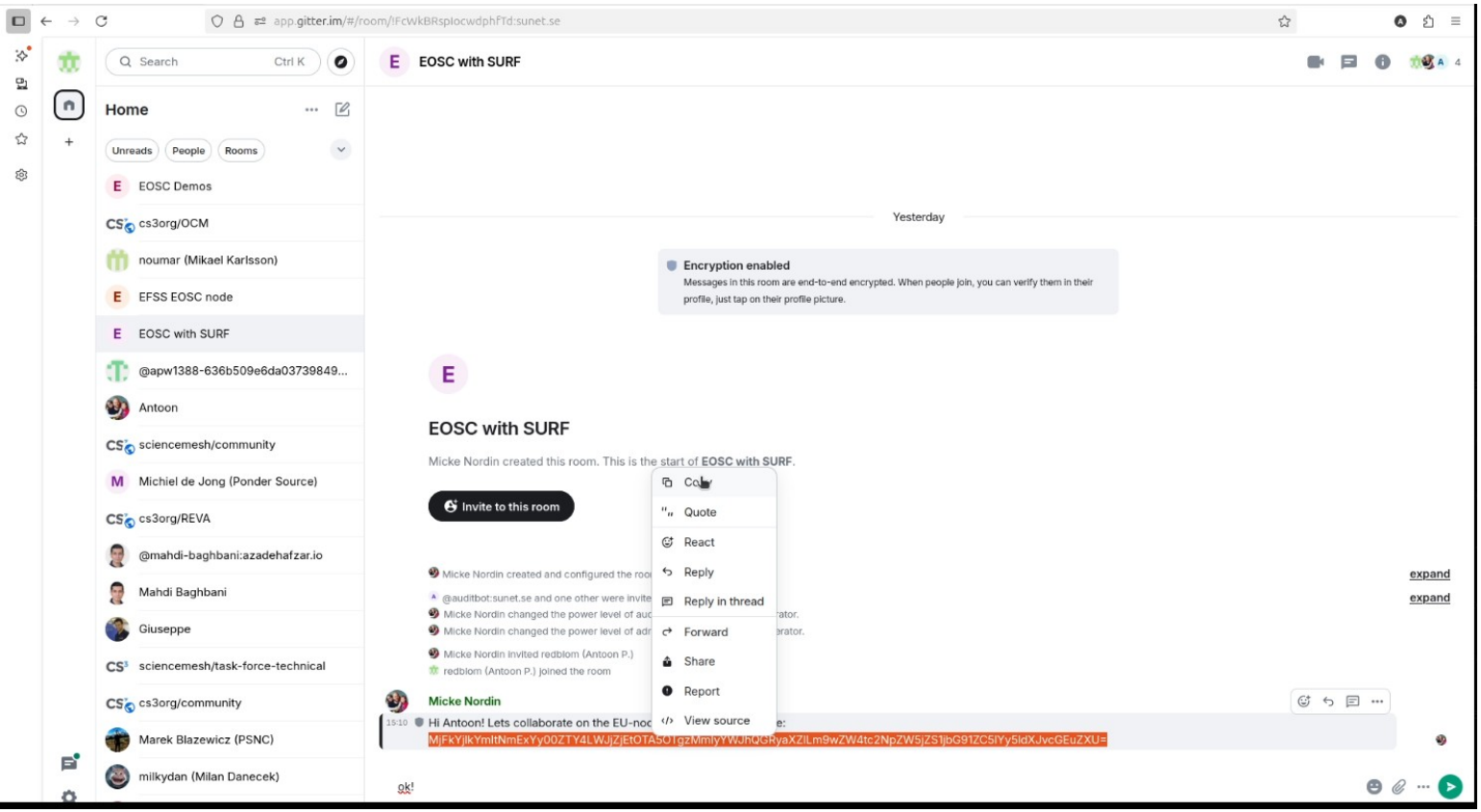
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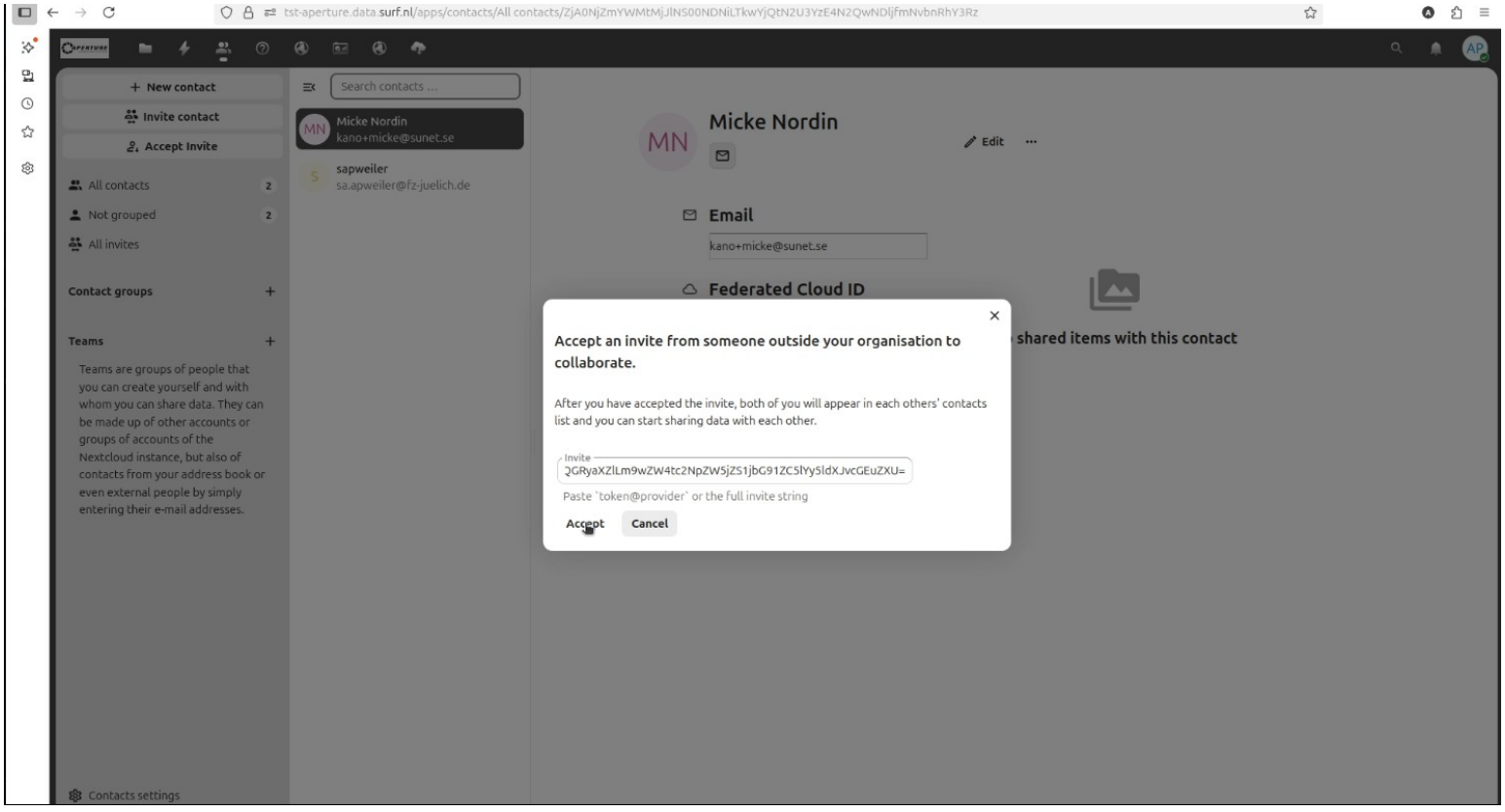
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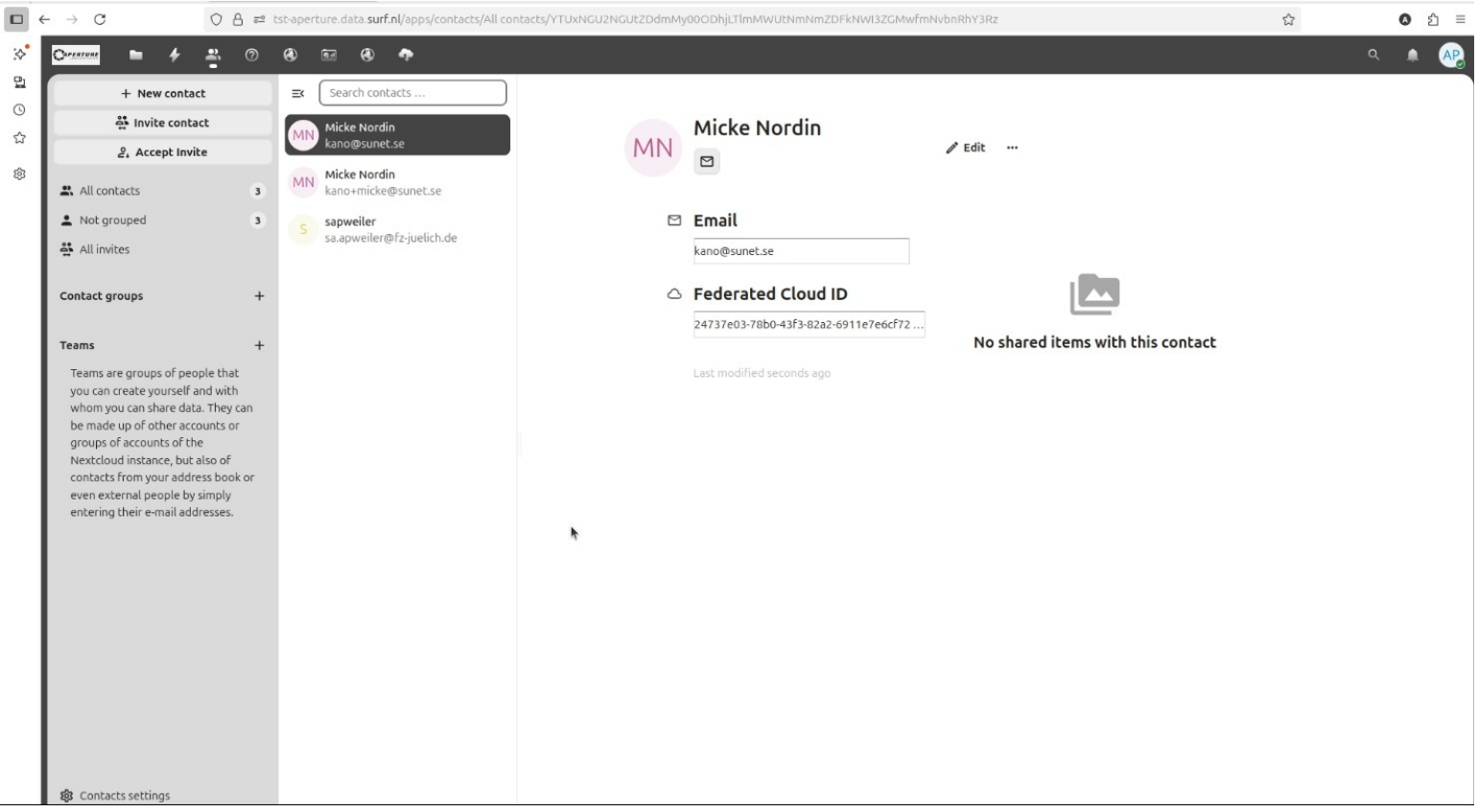
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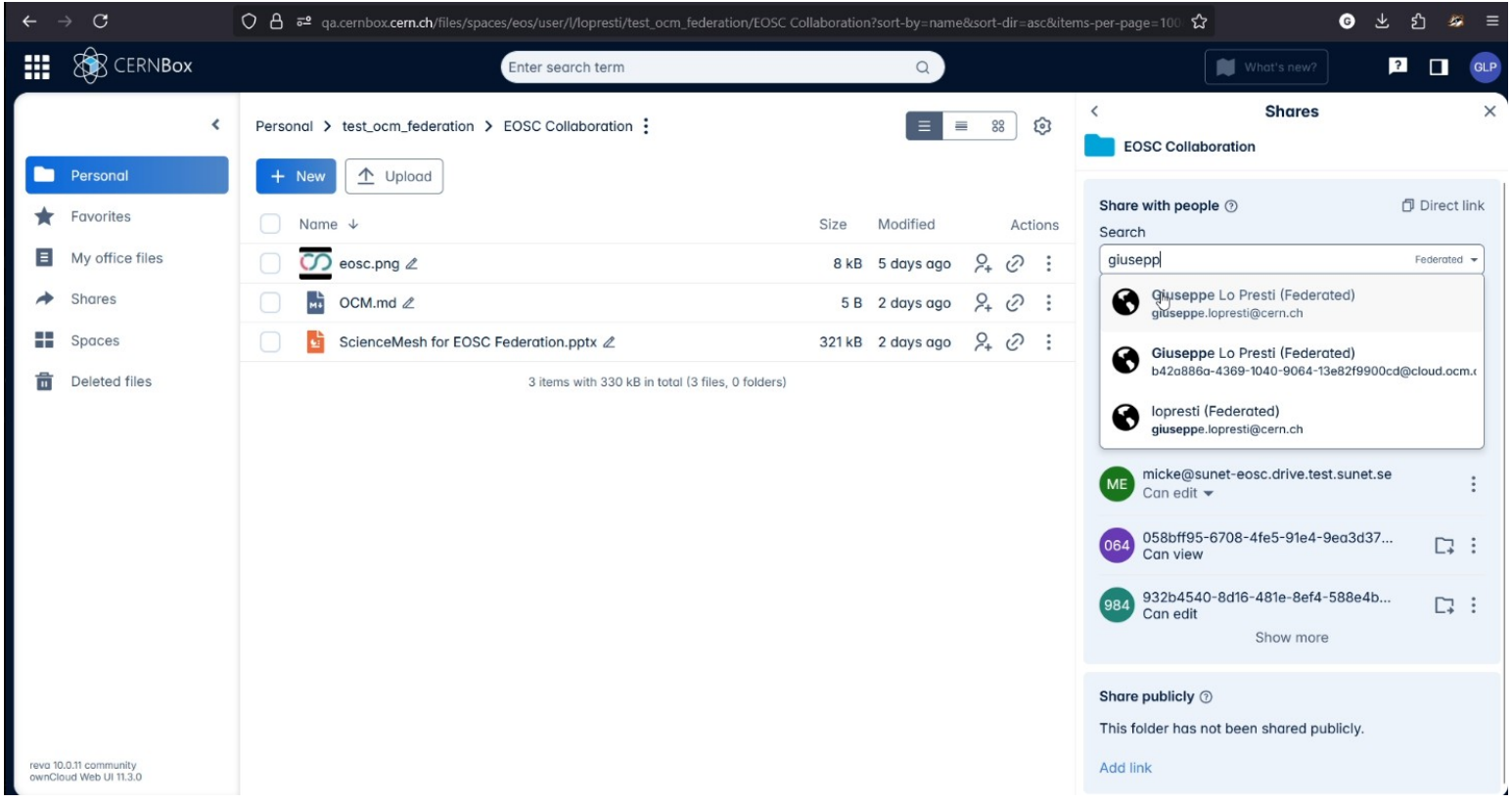
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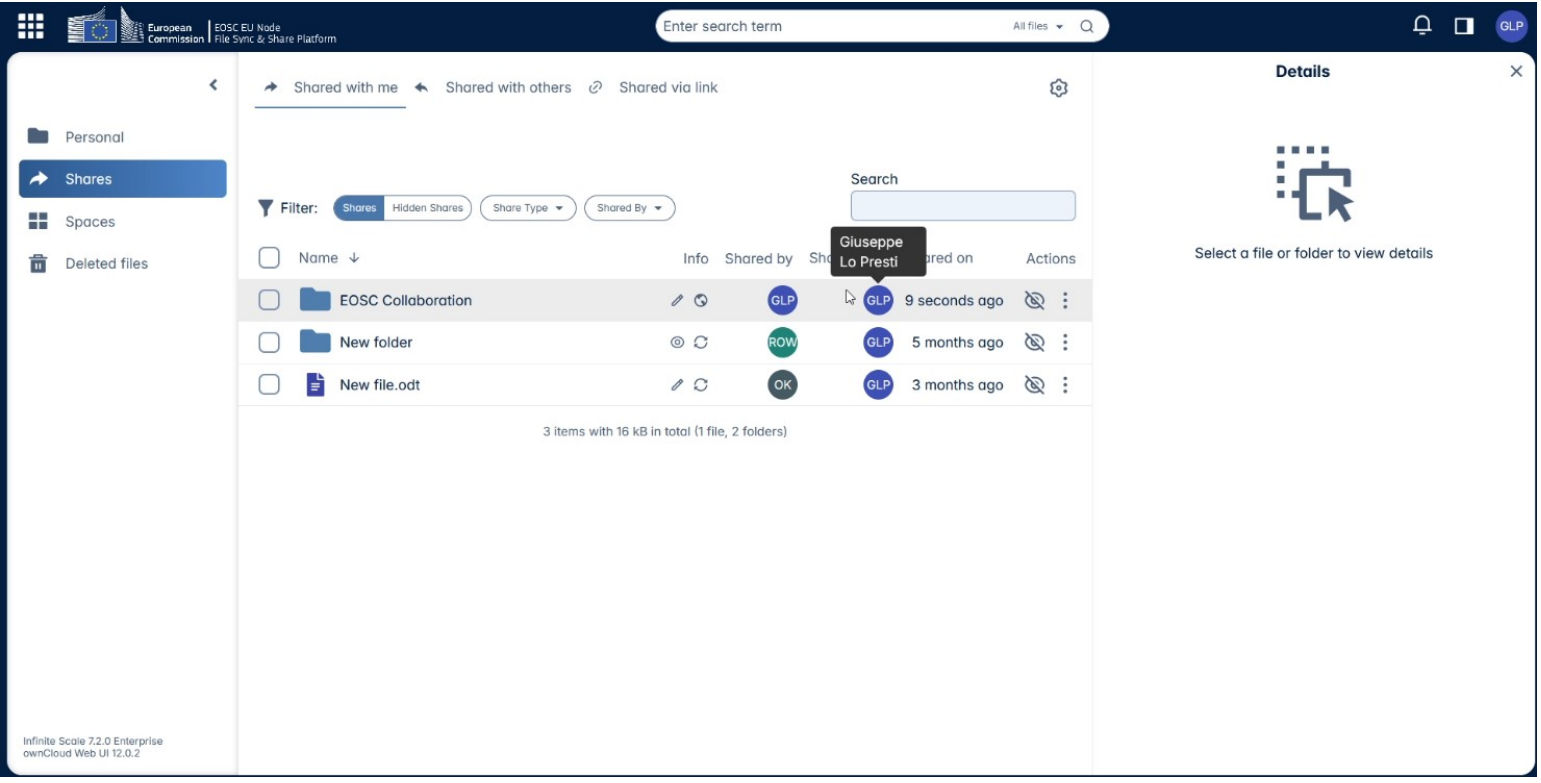
Shares



WebDAV with bearer token:

CERNBox → EU EOSC NODE

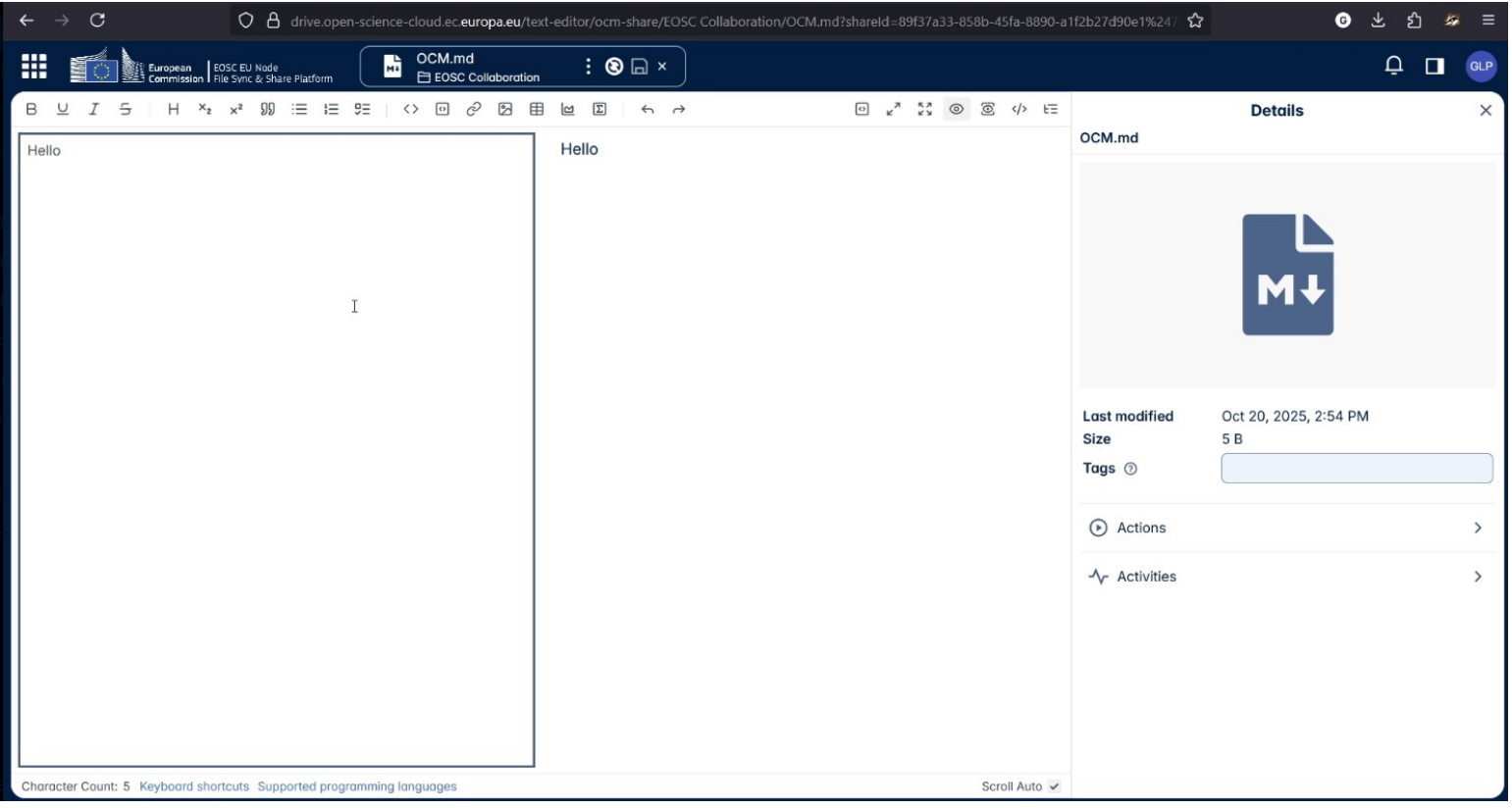
Shares



WebDAV with bearer token:

CERNBox → EU EOSC NODE

Shares



WebDAV with bearer token:

CERNBox → EU EOSC NODE

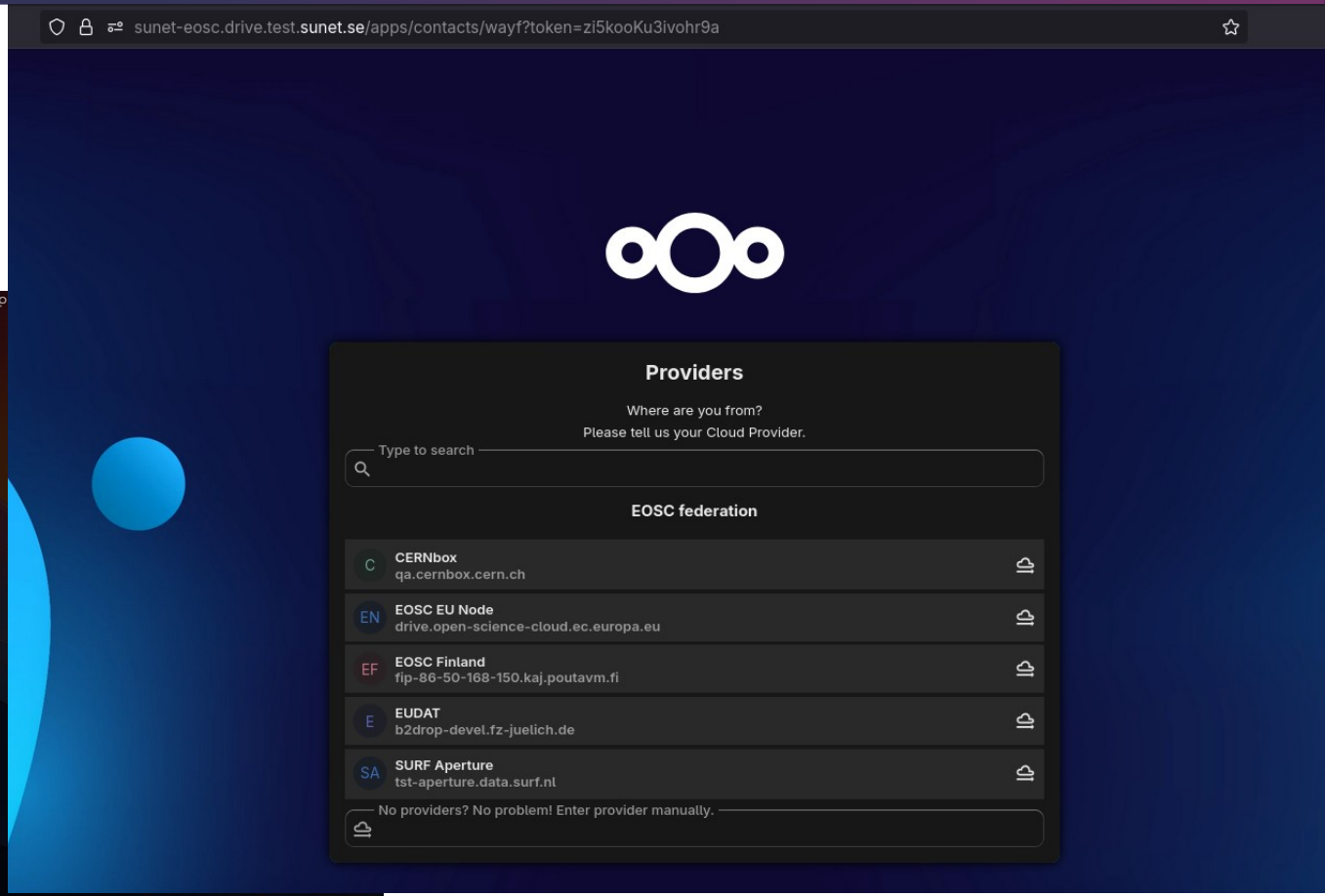
Discovery

```
micke@mickes-tredje-datta ~ curl -Ls https://sunet-eosc.drive.test.sunet.se/.well-kno
{
  "enabled": true,
  "apiVersion": "1.0-proposal1",
  "version": "1.1.0",
  "endPoint": "https://sunet-eosc.drive.test.sunet.se/ocm",
  "publicKey": {
    "keyId": "https://sunet-eosc.drive.test.sunet.se/ocm#signature",
    "publicKeyPem": "-----BEGIN PUBLIC KEY-----\nMIIBIjANBgkqhkiG9w0BAQEFAAOCAQ8AMIIBCgKCA
IVUg+gUgIUXz9DyfgNNfqZnTx6be+HI7amtd95HsLSPZLji\nR2XLZmhG6HcWAPU3WbAZPyR4kKuF9TvlRX3p9DbPQ
goCxHvM1Cb5HdYrVCdRYSeJ2b6kzxJRJueE2KZQI3/CXP6s\noPfkcmMYLkjMAUhVUePAncvsMXggvsRGPFvu+8tX8
zq7sVuatst07icbtM9MguYjifky0DbGZhmiI7tbiN5R4D3+\nNwIDAQAB\n-----END PUBLIC KEY-----\n"
  },
  "provider": "Nextcloud 32.0.0.13",
  "resourceTypes": [
    {
      "name": "file",
      "shareTypes": [
        "user",
        "group"
      ],
      "protocols": {
        "webdav": "/public.php/webdav/"
      }
    }
  ],
  "capabilities": [
    "/invite-accepted",
    "/notifications",
    "/shares"
  ],
  "inviteAcceptDialog": "https://sunet-eosc.drive.test.sunet.se/apps/contacts/ocm/invite-accept-dialog"
}
```

```
micke@mickes-tredje-datta ~ curl -s https://qa.cernbox.cern.ch/.well-known/ocm|jq .
{
  "enabled": true,
  "apiVersion": "1.2.0",
  "endPoint": "https://qa.cernbox.cern.ch/ocm",
  "provider": "CERNBox",
  "resourceTypes": [
    {
      "name": "file",
      "shareTypes": [
        "user"
      ],
      "protocols": {
        "webapp": "/external/sciencemesh",
        "webdav": "/remote.php/dav/ocm"
      }
    }
  ],
  "capabilities": [
    "invites",
    "webdav-uri",
    "protocol-object"
  ],
  "inviteAcceptDialog": "https://qa.cernbox.cern.ch/open-cloud-mesh/invitations"
}
```

Discovery

```
micke@mickes-tredje-datta ~ curl -Ls https://surfdrive.surf.nl/index.php
{
  "federation": "EOSC federation",
  "servers": [
    {
      "displayName": "SURF Aperture",
      "url": "https://tst-aperture.data.surf.nl"
    },
    {
      "displayName": "SUNET",
      "url": "https://sunet-eosc.drive.test.sunet.se"
    },
    {
      "displayName": "CERNbox",
      "url": "https://qa.cernbox.cern.ch"
    },
    {
      "displayName": "EOSC Finland",
      "url": "https://fip-86-50-168-150.kaj.poutavm.fi"
    },
    {
      "displayName": "EUDAT",
      "url": "https://b2drop-devel.fz-juelich.de"
    },
    {
      "displayName": "EOSC EU Node",
      "url": "https://drive.open-science-cloud.ec.europa.eu/"
    },
    {
      "displayName": "NC-OCM",
      "url": "https://nc-ocm.nl"
    },
    {
      "displayName": "NC-TEST",
      "url": "https://nc-test.nl"
    }
  ]
```



New WG chartered

We are already a decent community, but we need more collaborators, we want to develop several parts of the standard further and in particular we want extra eyes on the security parts, which are under-developed.

- WG: https://datatracker.ietf.org/wg/ocm/about/
- Mailing list : https://mailman3.ietf.org/mailman3/lists/ocm.ietf.org/
- Chat: https://matrix.to/#/#cs3org_OCM:gitter.im