Production environment (Klassa)

The Klassa access solution production environment is accessible only to

1. members that have signed an agreement for Svenska federationer with access to KLASSA, and
2. opted-in non-municipality members of Sambi and Skolfederation.

All member metadata published in the Klassa access solution aggregated metadata feed is by confirmed member organizations, that must comply with the trust framework and technical requirements.

Access to Klassa access solution production environment

Uploading metadata to Klassa access solution

Metadata opt-in from Skolfederation or Sambi

If your member organization is a member of either Skolfederation or Sambi and not a municipality*, you have the option to include existing or new entities in the Klassa access solution. This is done by:

1. Applying the opt-in Entity Attribute as defined in the Klassa access solution policy
2. Uploading the entity metadata to Skolfederation or Sambi via Federationsadmin

Example:

```
<md:EntityDescriptor
    xmlns:md="urn:oasis:names:tc:SAML:2.0:metadata"
    xmlns:saml="urn:oasis:names:tc:SAML:2.0:assertion"
    xmlns:ds="http://www.w3.org/2000/09/xmldsig#"
    xmlns:mdui="urn:oasis:names:tc:SAML:metadata:ui"
    xmlns:mdattr="urn:oasis:names:tc:SAML:metadata:attribute"
    entityID="https://openfed.swefed.se/placeholder/internetstiftelsen/sp-prod">
    <md:Extensions>
            <mdattr:EntityAttributes>
                    <saml:Attribute Name="https://id.openfed.se/entityattributes/opt-in" NameFormat="urn:oasis:
names:tc:SAML:2.0:attrname-format:uri">
                            <saml:AttributeValue>https://id.openfed.se/entityattributes/opt-in/yes</saml:
AttributeValue>
            </saml:Attribute>
        </mdattr:EntityAttributes>
        </md:Extensions>
...
...
</md:EntityDescriptor>
```

Once the opt-in Entity Attribute is correctly applied and the metadata has been published, the entity will be included in the Klassa access solution in accordance with the federation policy.

Opting in if municipality

*If your member organization is a municipality, opting in will include you in the Fedkom metadata feeds.

Metadata Publication Delay

After publishing your entity with the opt-in Entity Attribute, it may take up to approximately one hour before the entity is published in the Klassa access solution feeds.

This delay is due to differences in metadata aggregation and publishing cycles between the federations and Klassa access solution.

Sending metadata manually to federation operator

If your member organization is not a member of Skolfederation or Sambi, you can upload metadata by sending the metadata to the federation operator for validation and verification. If there are errors, the federation operator will request corrections. If everything is ready for upload, the federation operator will contact the Technical Contact to validate metadata checksum (SHA1) before publication to federation.

Technical information

Metadata

Klassa access solution produces three metadata feeds available for consumption:

Metadata feed	URL
All entities (IdP and SP)	https://md.openfed.se/prod/md/metadata_set2_01.xml
All SP's only	https://md.openfed.se/prod/md/metadata_set2_sp_01.xml
All IdP's only	https://md.openfed.se/prod/md/metadata_set2_idp_01.xml

Public key for verifying signature of all Klassa access solution metadata feeds is found below.

Certificate file: openfed-saml-signer-prod-1_0.crt

openfed-saml-signer-prod-1_0.crt

```
-----BEGIN CERTIFICATE-----
MIIF3zCCA8egAwIBAgIUFWgREqIHK0DwvAEUVaXW0Z6cNr0wDQYJKoZIhvcNAQEL
BQAwfjEhMB8GA1UEAwwYb3BlbmZlZC1zYW1sLXNpZ25lci1wcm9kMSgwJgYDVQQK
DB9UaGUgU3dlZGlzaCBJbnRlcm5ldCBGb3VuZGF0aW9uMRswGQYDVQQLDBJGZWRl
cmF0ZWQgU2VydmljZXMxEjAQBgNVBAcMCVN0b2NraG9sbTAgFw0yNjAyMTgxMDA0
MjhaGA8yMTI2MDEyNTEwMDQyOFowfjEhMB8GA1UEAwwYb3BlbmZlZC1zYW1sLXNp
Z25lci1wcm9kMSgwJgYDVQQKDB9UaGUgU3dlZGlzaCBJbnRlcm5ldCBGb3VuZGF0
aW9uMRswGQYDVQQLDBJGZWRlcmF0ZWQgU2VydmljZXMxEjAQBgNVBAcMCVN0b2Nr
aG9sbTCCAiIwDQYJKoZIhvcNAQEBBQADggIPADCCAgoCggIBAKesRxDCvDsdDYvj
f2y0YiuK5ay/phWT3DY3DTsIQDpnpWewIuRaSGhkVm5Q+/DVjDquQAI/IwlHiUBt
m9pP1aAIt3fCM3Fz3z2HmPquz/SmKRF1Mov8jPpl69ZK/DmtZKIkCw42mCdH//oq
gjqcR2rDz4nj35kmCVUaKpyAvU6lmQxlgE6ODIKSGjcRMCJKKNNnGlwoA1pJKCfC
4ZJ+WXD5/9btUmPMo0k70GRbva5/KDP7JBxi7t41XrM9UXhfnBSnmrB0ulagwwDM
oF28XIeu37/4ZuW8hYJzOGIOME5dmM2QJOTwaoMjrK3z84Bc4TEB+Tq5+j2dsVx8
gu4oq8y7LDkEnQoOqX1/gfobAC14Q5ydvV33CLRPve+ZrO60ZkA5wIJG7qkUHzET
N0BFYbaJCyY4vVWMyAGdOcpG2gBGVnEy0akURzccv1+z9bwuj9S3mjsPEp4FVOsq
7ikw/I+fGydCKdxXzXsl0lu9G5l4DYrSXhMqqzyH+M6oQjRjzcHLkRhLOwDriGYa
LftcKMbQ/3cxx4xAWTBb1TSTy2jF6zuVO5L+sFM6FOfQ5rRpXcUMeWh6w58ZJgpW
ldKCRm+YWaAmn/i3vZwpkCQZSl0sEz7BoChq1YjFVO8fJx0w928dxuagOX4lM9AQ
M8vWqXd6se8uNBC9TGZmVrYAtebzAgMBAAGjUzBRMB0GA1UdDgQWBBTbMbFzwZ6S
u1ZjkcY/YaJbEE0b6TAfBgNVHSMEGDAWgBTbMbFzwZ6Su1ZjkcY/YaJbEE0b6TAP
BgNVHRMBAf8EBTADAQH/MA0GCSqGSIb3DQEBCwUAA4ICAQBesnIFX0im9T5TXBgp
guoNqWVd7Zu/55M9HPVfLcjK37C8Epmplj3q6RmvGNY+11jyPBTUnujzeOpIMKf2
yJDg0wDMqZdOMZYCVeZGI+4p+DPWt6iUBS6xnXg6voU4HxDVCWEynE/jx0QS4oY0
2E1ixh5/m5I84T21GlAncxkuUwoCdFl9Uqv7JVOArM56lzwjSDFq0tYD6VOqegGr
MXXtoP+IkVGCVx/BudtNWyngMCk6NiU1WS3hSwJsCnaZCMQh1kOY7K62C61T7T5F
atnUXGAvhpplXiB8RnaMWNhsDRywpRhARJt8gpHge7ETrmzr1knh04ewxdMCfvy4
ukqXrXroXgIOYldZ8Wp6Pv4Wry3zKNnYgoOAMNxlDK8Xt4AXdjoMPLBrevjfjPRS
jzFiVmH+kXMhPVe1X4uEdR9aGqjXI89VJxsRjqCjA0yqWYUUJi49ZItZP1FfIOqP
rPxduE1MxlTGtM+d7dYVPzGAzKTSK/YP6AeuVkhB2YJlSx7msF7xowktH9m+7Bpk
xDBqvt2cWfX0B8VQOfjP9pf4iq1vCKbPS976bZmuJQ2MB7yk8dW+6Q9w5gVoaE7r
gMUWbMXQoOjO6TQE5UaZ+JLN3s71flWiruDuey72FnvsKCrIwygIevS3p3WDNKEm
vwRHX3FjNwXhLYnC0o0yTds2YQ==
-----END CERTIFICATE-----
```

```
SHA-256 fingerprint:
EE:A2:A9:C3:05:06:72:BD:B5:4E:81:1E:97:7A:11:B4:A6:DC:08:7B:C5:15:D5:B8:6F:0D:0C:88:37:F1:BA:B6
```

Verify metadata with certificate

We recommend verifying the fingerprint of the signing certificate with the federation operator before adding the certificate to your IdP/SP trust. After trusting the certificate, always verify federation metadata signature with signing certificate to guarantee metadata integrity.

Discovery Service (DS)

A centralized SAML 2.0 Discovery Service for Klassa access solution is found below.

https://md.openfed.se/prod/ds/

The DS is populated with all IdP's from the Fedkom metadata. The names shown in the DS are based on the OrganizationDisplayName attribute from the IdP metadata.

Use other ways of discovery

Note that the federation operator does not recommend the usage of the centralized DS for discovery of IdP's in production environments, due to limitations in user experience. If required, service providers are recommended to implement a method of discovery better suited to their service.

Generic errorURL handler

A generic errorURL handler is provided in the federation. More information: Generic errorURL handler.