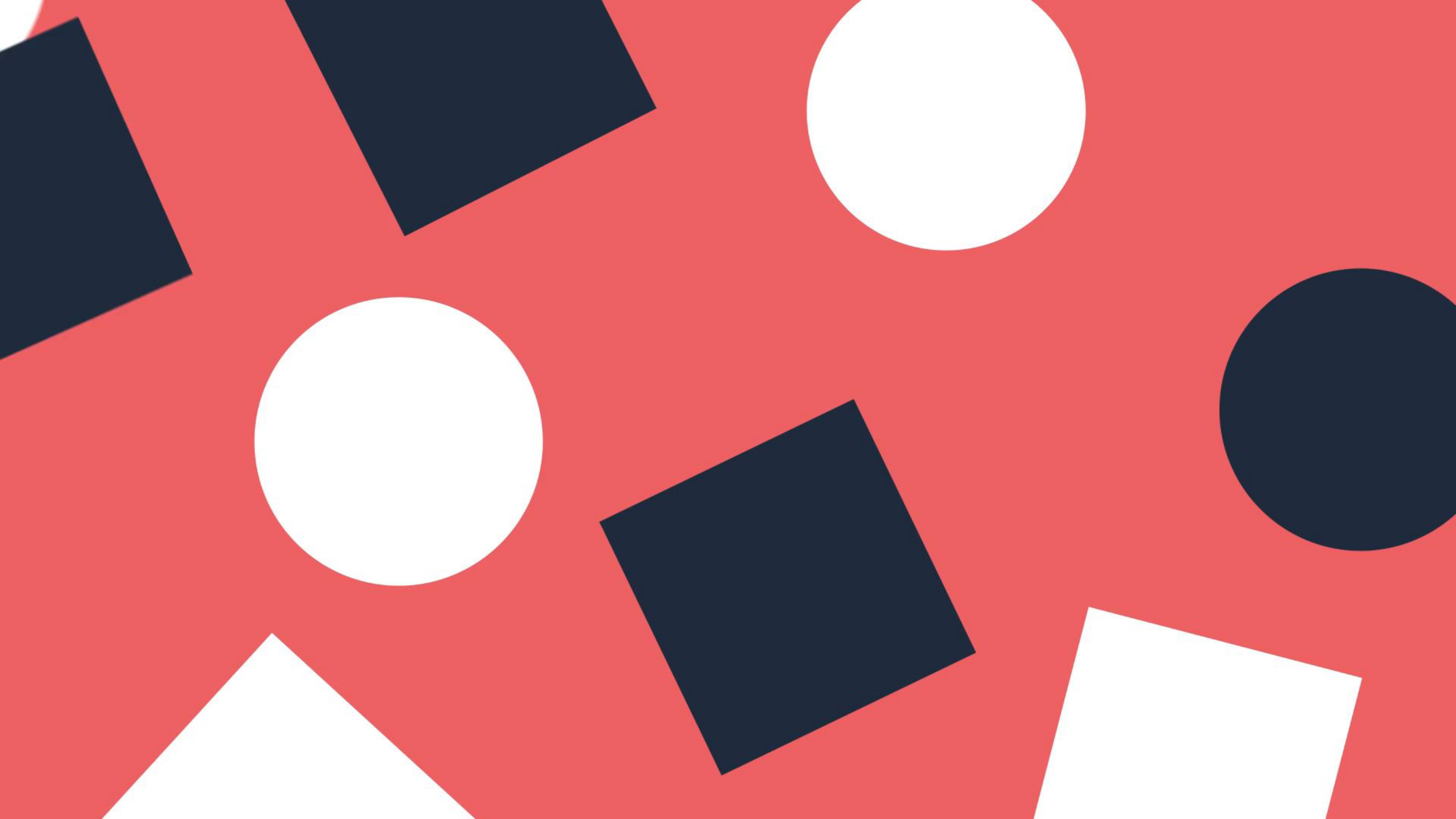




Bruk av API-er for Altinn 3-apper

Agenda

- Hva er en Altinn 3 app?
- Hvordan integrere
 - Autentisering og autorisasjon mot app API
 - Eksempel innsending
- Dokumentasjon
- Status
- Videre arbeid

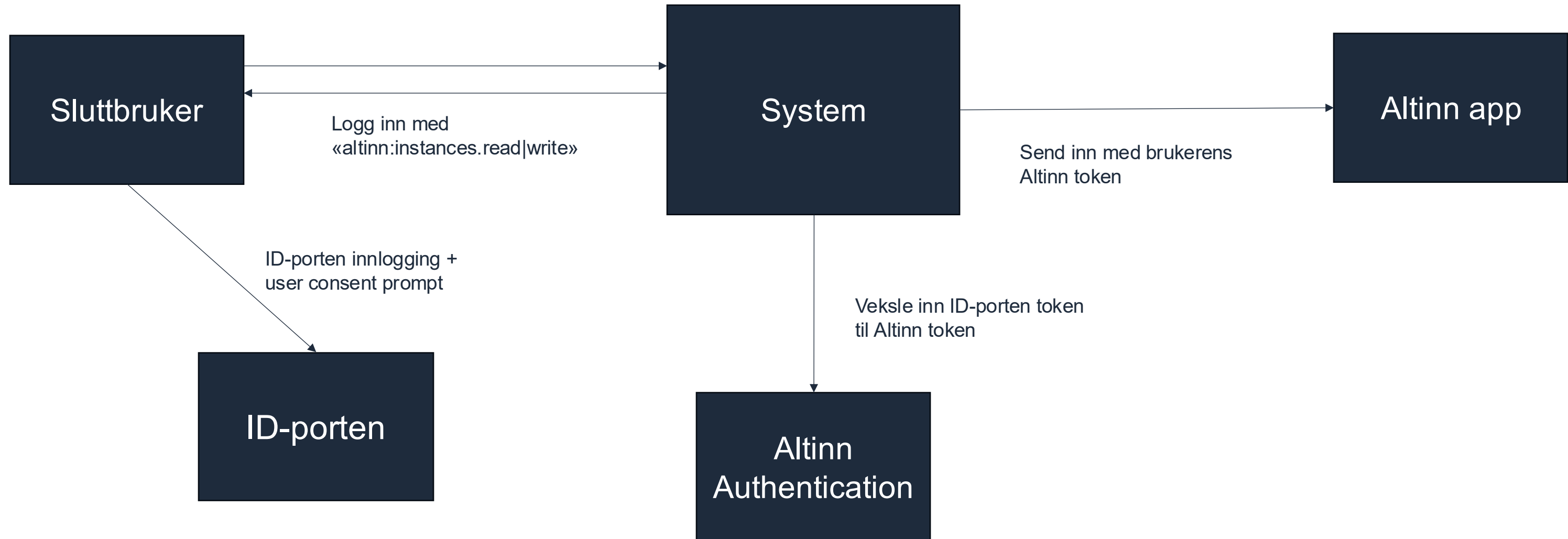
Hva er en Altinn 3 app?

- Webapp
- Skjemamotor – datamodellering, UI/layout
- Prosessmotor – BPMN
- Begreper:
 - Instanser – en instans av et skjema
 - Prosess steg – en instans er alltid på 1 prosess-steg
 - Datatyper – beskrivelsen av en datamodell
 - Dataelementer – instansiert datamodell
 - Handler/actions – handler utført i et prosess-steg (f. eks. sign)

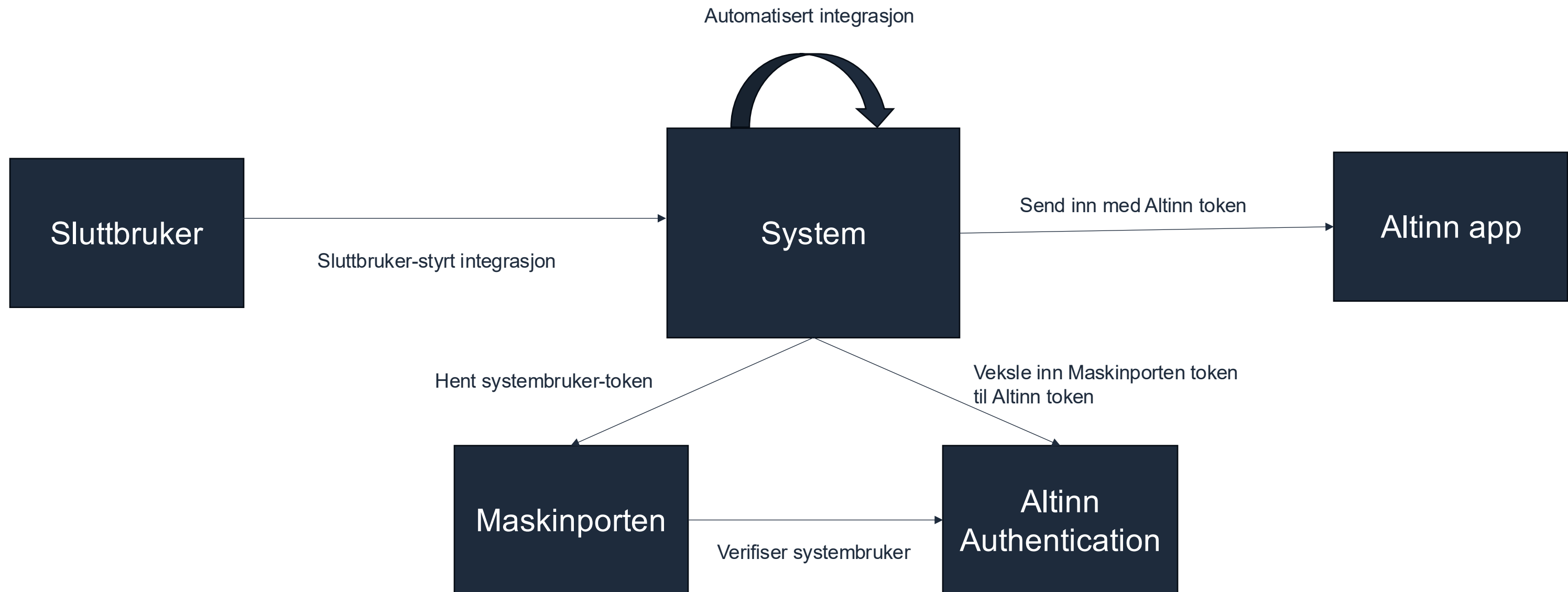
Integrering – metoder

- 2 varianter
- Leverandør-eid ID-porten klient
 - Personer som logger inn og sender inn (BankID o.l.)
 - Bruker «altinn:instances.read|write» scopes (user consent)
 - (Innvekslet) sluttbruker-token sendes til app API
- Systembruker (vha Maskinporten)
 - Leverandør logger inn med Maskinporten
 - Leverandøren automatiserer innsending på vegne av kunde (organisasjon)
 - (Innvekslet) systembruker-token sendes til app API
 - Velegnet til automasjon

Integrering – leverandør-eid ID-porten klient

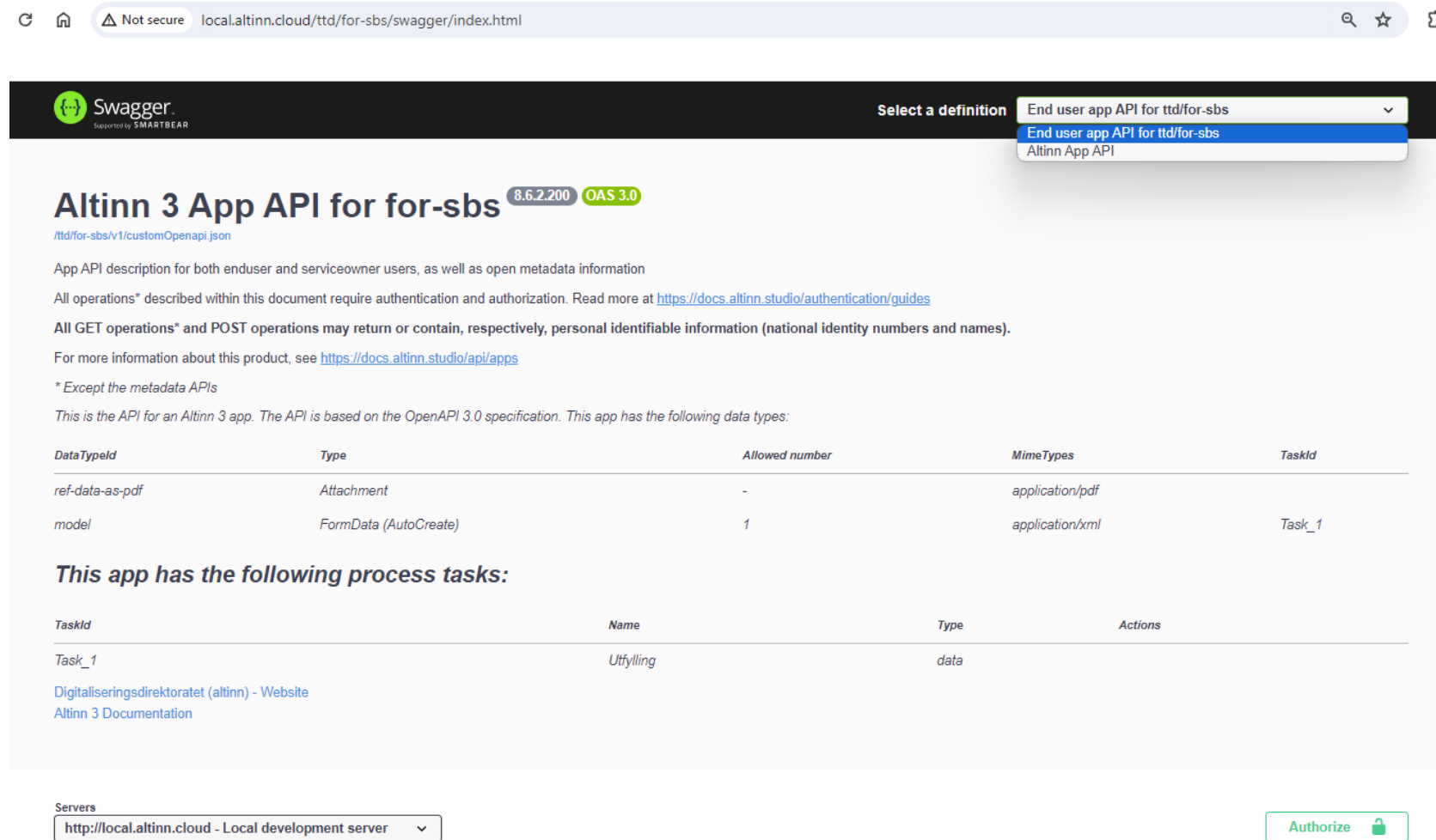


Integrering – systembruker



Integrasjon - APler

- OpenAPI v3 – 2 varianter (for v8.6+)
 - App-spesifikk (default i UI)
 - Generisk – felles API-beskrivelse for alle apper



Swagger

Select a definition

End user app API for ttd/for-sbs

End user app API for ttd/for-sbs

Altinn App API

Altinn 3 App API for for-sbs

8.6.2.200 OAS 3.0

/ttd/for-sbs/v1/customOpenapi.json

App API description for both enduser and serviceowner users, as well as open metadata information

All operations* described within this document require authentication and authorization. Read more at <https://docs.altinn.studio/authentication/guides>

All GET operations* and POST operations may return or contain, respectively, personal identifiable information (national identity numbers and names).

For more information about this product, see <https://docs.altinn.studio/api/apps>

* Except the metadata APIs

This is the API for an Altinn 3 app. The API is based on the OpenAPI 3.0 specification. This app has the following data types:

DataTypeId	Type	Allowed number	MimeTypes	TaskId
ref-data-as-pdf	Attachment	-	application/pdf	
model	FormData (AutoCreate)	1	application/xml	Task_1

This app has the following process tasks:

TaskId	Name	Type	Actions
Task_1	Utfylling	data	

[Digitaliseringsdirektoratet \(altinn\) - Website](#)

[Altinn 3 Documentation](#)

Servers

http://local.altinn.cloud - Local development server

Authorize

Integrasjon – 1.1 enkel instansiering

```
POST https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances/create
Content-Type: application/json
Authorization: Bearer <access-token>
```

```
{
  "prefill": {
    "property1": "value1",
    "property2": "value2",
    "property3": "value3"
  },
  "instanceOwner": {
    "organisationNumber": "950474084"
  }
}
```

```
HTTP/1.1 201 Created
```

```
Content-Type: application/json; charset=utf-8
```

```
{
  "id": "500700/232c5390-9479-4506-a266-9890d7287bfb",
  "instanceOwner": {
    "partyId": "500700",
    "organisationNumber": "950474084",
    "party": { }
  },
  "process": {
    "currentTask": {
      "flow": 2,
      "started": "2025-05-21T20:51:10.0045338Z",
      "elementId": "Task_1",
      "name": "Utfylling",
      "altinnTaskType": "data",
      "ended": null
    },
    "ended": null,
    "endEvent": null
  },
  "data": [
    {
      "id": "ce8665c1-01c3-49f7-960f-196b250a2266",
      "instanceGuid": "232c5390-9479-4506-a266-9890d7287bfb",
      "dataType": "model",
      "filename": null,
      "contentType": "application/xml",
    }
  ]
}
```

Integrasjon – 1.2 multipart instansiering

```
POST https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances
Authorization: Bearer <access-token>
Content-Type: multipart/form-data; boundary=----FormBoundary

-----FormBoundary
Content-Disposition: form-data; name="instance"
Content-Type: application/json

{
  "instanceOwner": {
    "organisationNumber": "950474084"
  }
}

-----FormBoundary
Content-Disposition: form-data; name="model"
Content-Type: application/xml

<model>
  <property1>value1</property1>
  <property2>value2</property2>
  <property3>value3</property3>
</model>
-----FormBoundary--
```

```
HTTP/1.1 201 Created
Content-Type: application/json; charset=utf-8

{
  "id": "500700/232c5390-9479-4506-a266-9890d7287bfb",
  "instanceOwner": {
    "partyId": "500700",
    "organisationNumber": "950474084",
    "party": { }
  },
  "process": {
    "currentTask": {
      "flow": 2,
      "started": "2025-05-21T20:51:10.0045338Z",
      "elementId": "Task_1",
      "name": "Utfylling",
      "altinnTaskType": "data",
      "ended": null
    },
    "ended": null,
    "endEvent": null
  },
  "data": [
    {
      "id": "ce8665c1-01c3-49f7-960f-196b250a2266",
      "instanceGuid": "232c5390-9479-4506-a266-9890d7287bfb",
      "dataType": "model",
      "filename": null,
      "contentType": "application/xml",
    }
  ]
}
```

Integrasjon – 2 utfylling

```
PUT https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances/500700/232c5390-9479-4506-a266-9890d7287bfb/data/ce8665c1-01c3-49f7-960f-196b250a2266/type/model?language=nb
```

```
Authorization: Bearer <access-token>
```

```
Content-Type: application/json
```

```
{  
  "property1": "value4",  
  "property2": "value5",  
  "property3": "value6"  
}
```

```
HTTP/1.1 201 Created
```

```
Content-Type: application/json; charset=utf-8
```

```
{  
  "id": "ce8665c1-01c3-49f7-960f-196b250a2266",  
  "instanceGuid": "232c5390-9479-4506-a266-9890d7287bfb",  
  "dataType": "model",  
  "contentType": "application/xml"  
}
```

Integrasjon – 3 send inn

```
PUT https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances/500700/232c5390-9479-4506-a266-9890d7287bfb/process/next
Content-Type: application/json
Authorization: Bearer <access-token>

HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8

{
  "currentTask": null,
  "processTasks": [
    {
      "altinnTaskType": "data",
      "elementId": "Task_1"
    }
  ],
  "started": "2025-05-21T21:03:24.8313838Z",
  "startEvent": "StartEvent_1",
  "ended": "2025-05-21T21:03:42.6943525Z",
  "endEvent": "EndEvent_1"
}
```

Integrasjon – 4 kvittering

```
GET https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances/500700/232c5390-9479-4506-a266-9890d7287bfb
Authorization: Bearer <access-token>
```

```
HTTP/1.1 200 OK
Content-Type: application/json; charset=utf-8
```

```
{
  "id": "500700/232c5390-9479-4506-a266-9890d7287bfb",
  "data": [
    { ... },
    {
      "id": "0445d618-28b8-4af5-95e0-c8c989487e7a",
      "instanceGuid": "232c5390-9479-4506-a266-9890d7287bfb",
      "dataType": "ref-data-as-pdf",
      "filename": "aarsregnskap.pdf",
      "contentType": "application/pdf"
    }
  ]
}
```

```
GET https://brg.apps.tt02.altinn.no/brg/aarsregnskap/instances/500700/232c5390-9479-4506-a266-9890d7287bfb/data/0445d618-28b8-4af5-95e0-c8c989487e7a/type/ref-data-as-pdf?language=nb
Authorization: Bearer <access-token>
Accept: application/pdf
```

```
HTTP/1.1 200 OK
Content-Type: application/pdf
Content-Length: 8340
Content-Disposition: attachment; filename=aarsregnskap.pdf; filename*=UTF-8'aarsregnskap.pdf
```

...

Dokumentasjon

- Studio SBS docs: <https://docs.altinn.studio/nb/altinn-studio/guides/integration/sbs/>
- Autorisasjon SBS docs: https://docs.altinn.studio/nb/authentication/guides/system_vendor/
- Maskinporten systembruker docs: https://docs.digdir.no/docs/Maskinporten/maskinporten_func_systembruker

Status

- Nylig innført systembruker-støtte i v8.6 i apps
- Flere pilotprosjekter for systembruker integrasjon
- Under arbeid: app-spesifikke scopes

Videre arbeid

- Støtte integrasjoner, pilotprosjekter
- Forbedring av OpenAPI spec
- App-spesifikke scopes
- Forenkle autentiseringsoppsett?
- Generere klientbiblioteker?

- Spørsmål?
- Alle tilbakemeldinger og tips tas imot med takk
Ta gjerne kontakt på #produkt-altinn-studio på Altinn-slacken eller lag issue på GitHub



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