

Egde Health Gateway

FHIR Facade og Health Gateway

24. mai 2023

Møte 18 i FHIR fagforum: FHIR
infrastruktur og arkitektur

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Egde

Bakgrunn for Egde Health Gateway



- Startet med FHIR-servere (HAPI og SmileCDR)
- Ikke mange integrasjoner var FHIR-kompatible
- Felles måte å bygge flere prosjekter samtidig og på en effektiv måte.
- Bygge videre på prosjekter som allerede hadde en god nok backend
- FHIR API for ulike use-cases: interne FHIR-backend, facade for eksterne backend

Egde Health Gateway

En ny standard for datautveksling i helsevesenet

Integrasjonsplattform for samhandling og datadeling

Egde Health Gateway



Egde Health Gateway

En ny standard for datautveksling i helsevesenet



GODKJENNING VIA
NHN



BYGGE PÅ NORSK
BASIS PROFILER



NORMEN
COMPLIANCE

Eksempler på prosjekter

Primærhelsetjenesten (kommuner)

- Godt Begynt – Webservices for CheckWare, Meldingsutveksling med EPJ

Spesialisthelsetjenesten (sykehus)

- Sørlandet sykehus: StaySafe
- Flåttsjekk
- Scanin MR-klinikk

Start-ups (leverandører)

- Tigeni, Lifeness, Abel



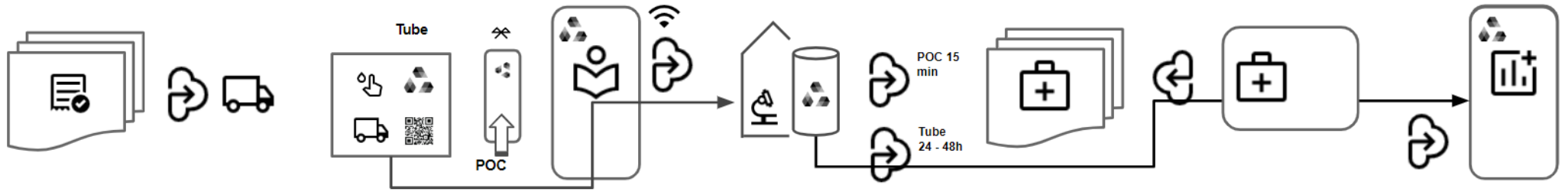
Konvertering av data

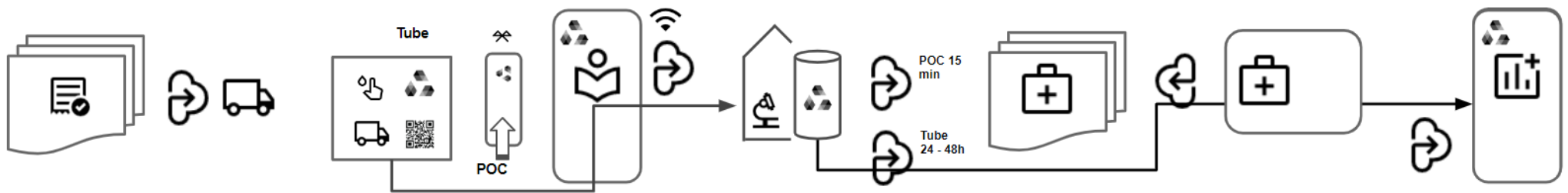
ebXML

SOAP
XML

REST
JSON

Tigeni





Behandler rekvirerer i EPJ eller App. Tigeni distribuerer kit for kapillær prøvetaking, til behandler, eller direkte til innbygger.

Bruker verifiserer rekvisisjon, prøve ID og aktiverer samtykke Med BankID og personnummer.

Prøve tas – tube returneres lab eller leses av umiddelbart i POC

Analyse gjennomføres på laboratoriet eller I POC og resultatrapport administrasjon i Tigeni Symbio 4 for distribusjon og tolkning.

Samtykke administrasjon av pasient og behandler og deling av resultatrapport.

Behandler, rekvirent gjennomfører oppfølging i EPJ / App

Innbygger leses resultat i app, eller behandler relatert applikasjon. Innbygger og behandler kan be om, gi og trekke tilbake samtykke.



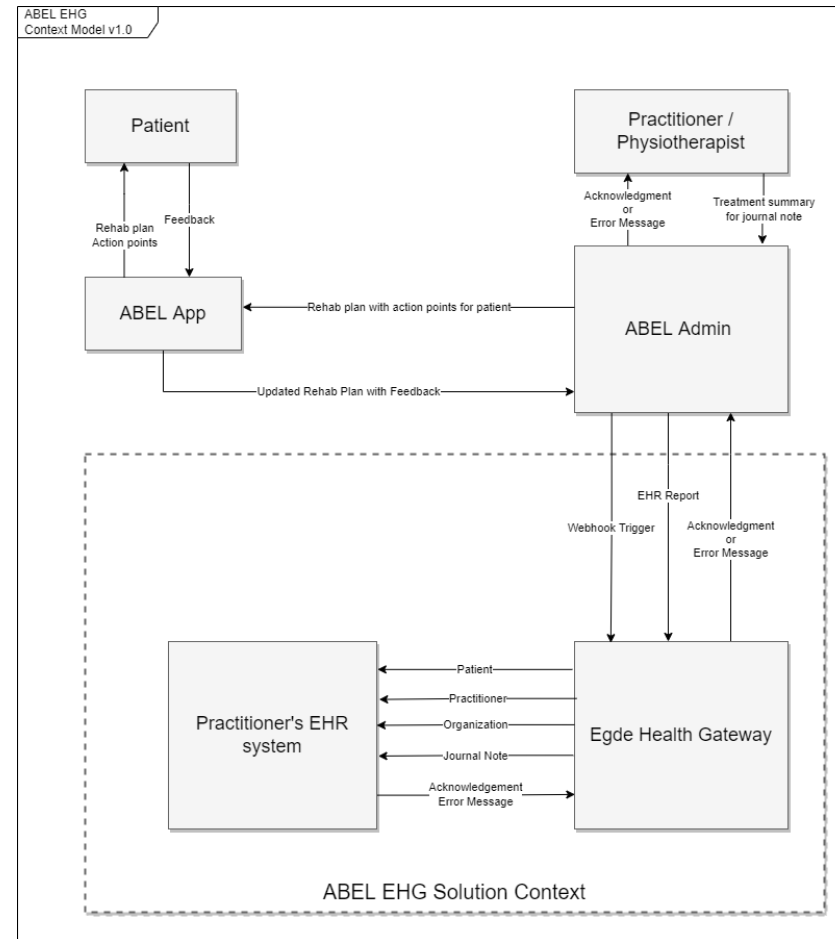
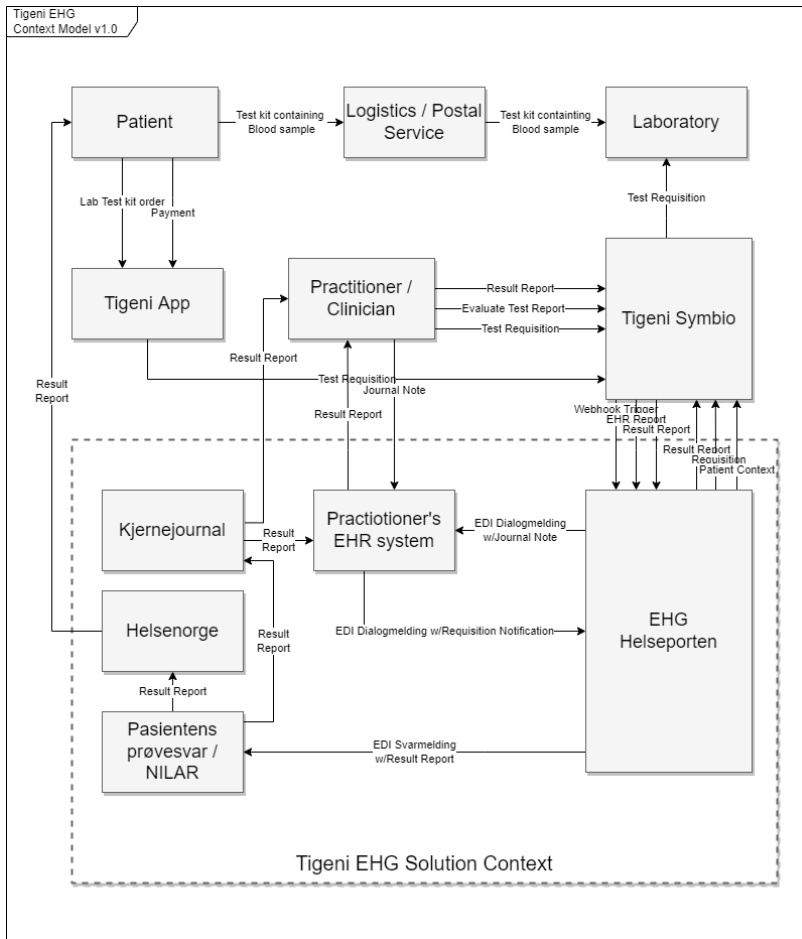
Arkitektur

Egde Health Gateway

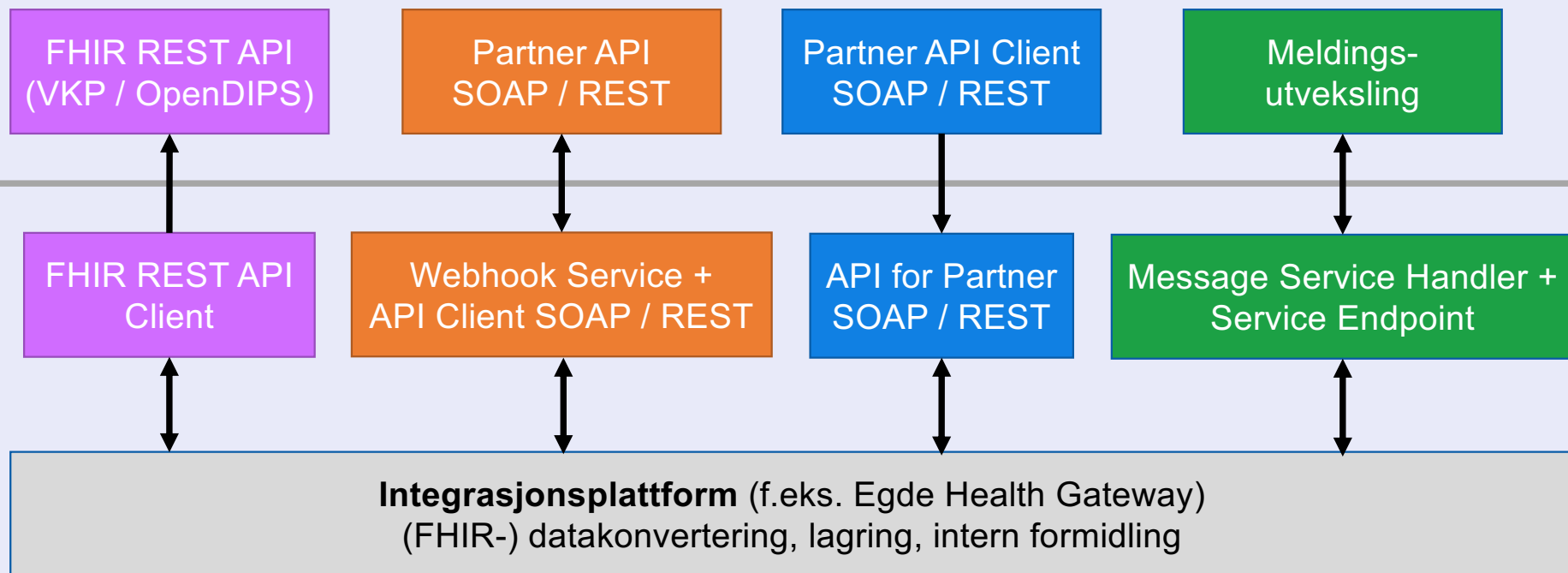
Mange-til-mange integrasjoner

API-data og meldinger

Kontekstkart for to løsninger



Hvordan integrere mot ulike plattformer?



12

En arkitektur for mange-til-mange integrasjoner

Use-case Tigeni

Ekstern partner
Her: **Tigeni**

Webhook-trigger

Tigeni API

FHIR Facade API
for Tigeni

EHG Webhook
Service

Partner API Client

**Egde
Health
Gateway**

Konvertering til målformat (Proto, FHIR-Proto)

Tilgjengeliggjøring for
FHIR Facade API

Intern formidling (kø)

EDI Message
Service Handler

NHN

EPJ + PP (NILAR)

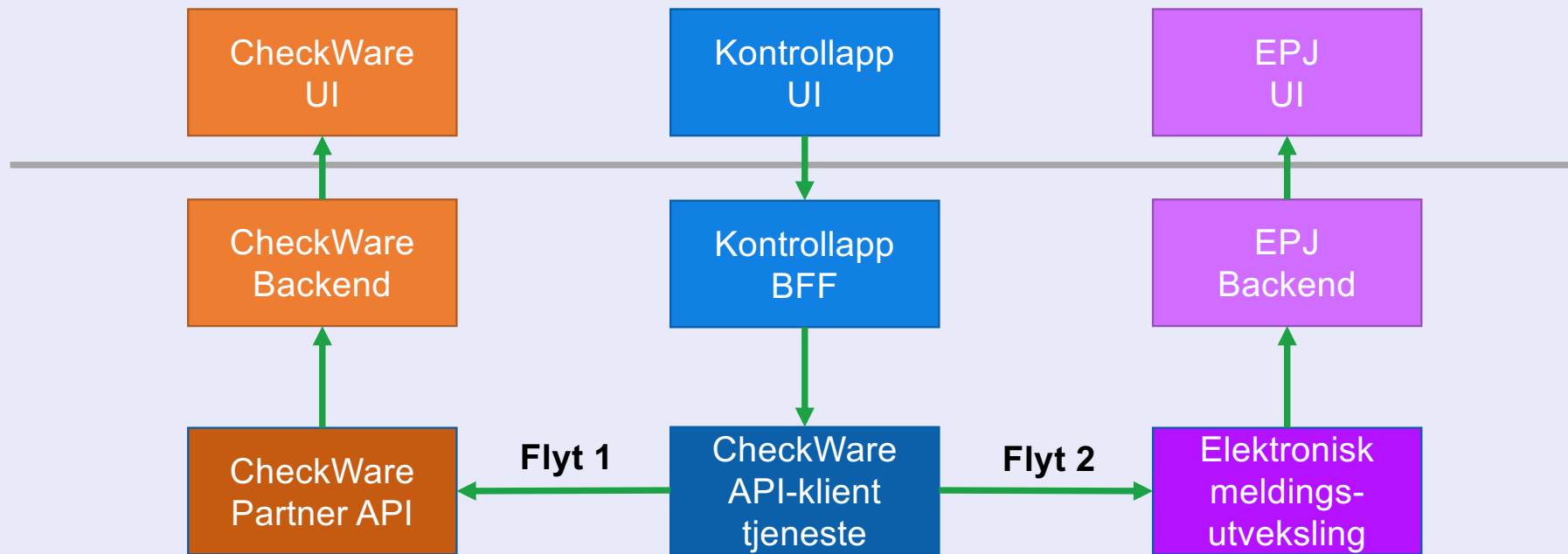
EDI-tjenesten

HelseID

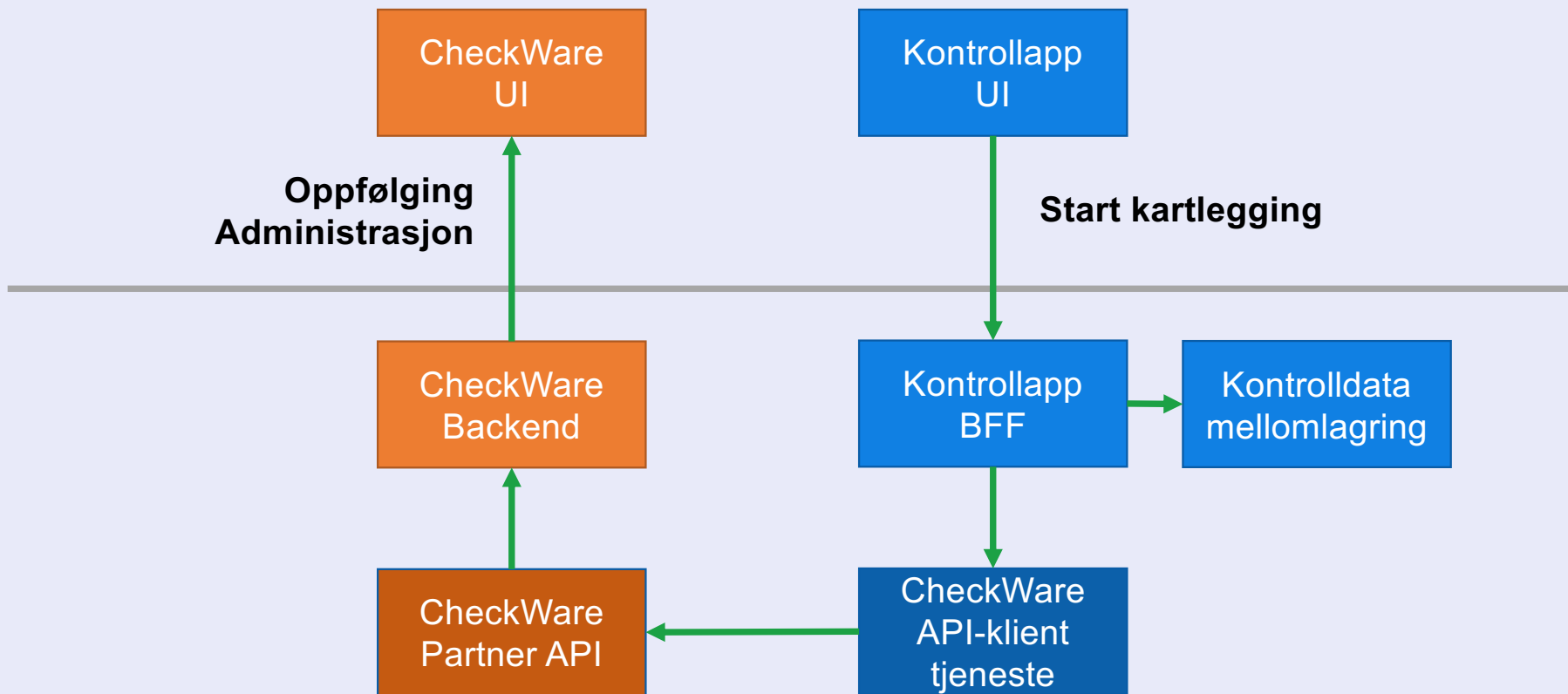
Egde



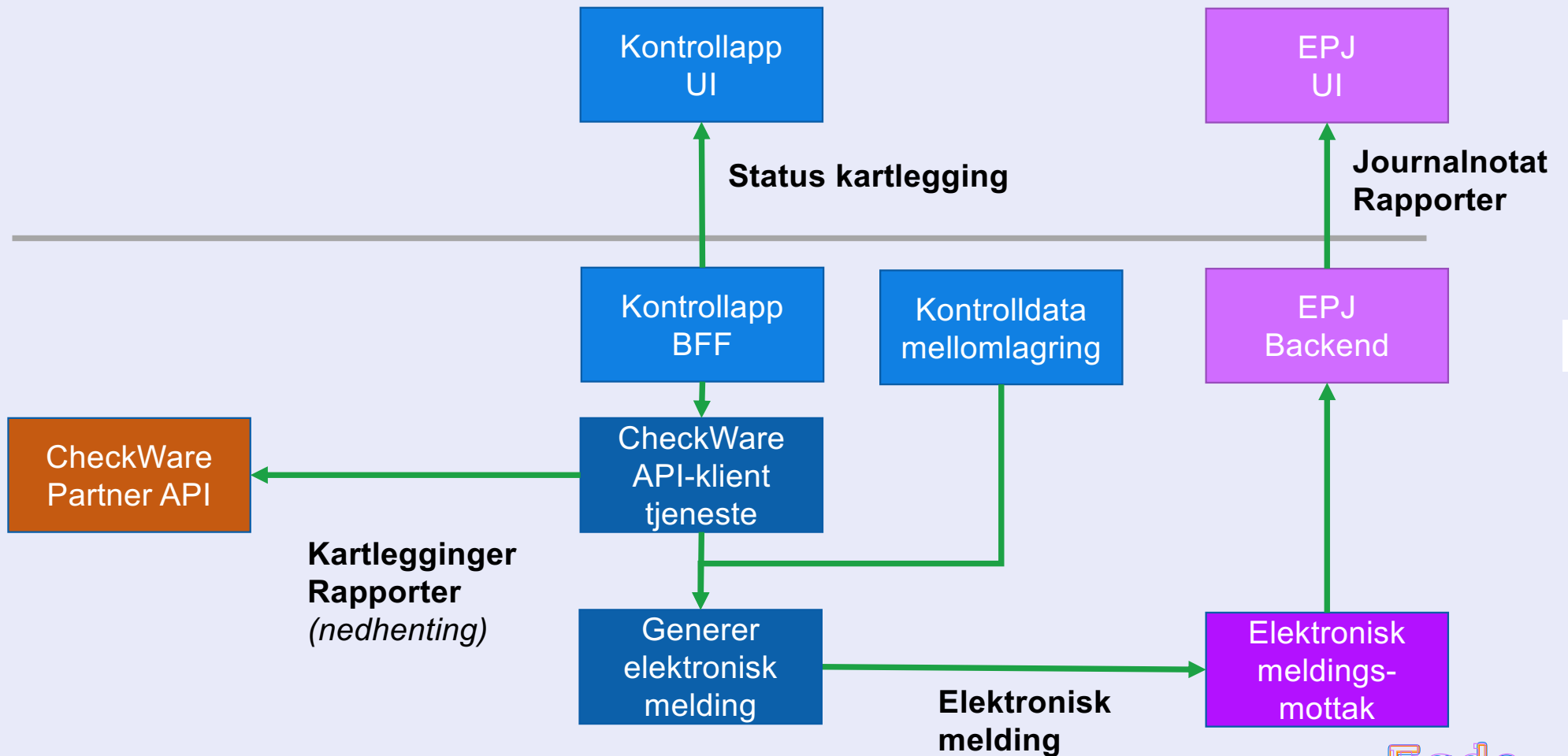
Godt begynt: Komponenter og dataflyter



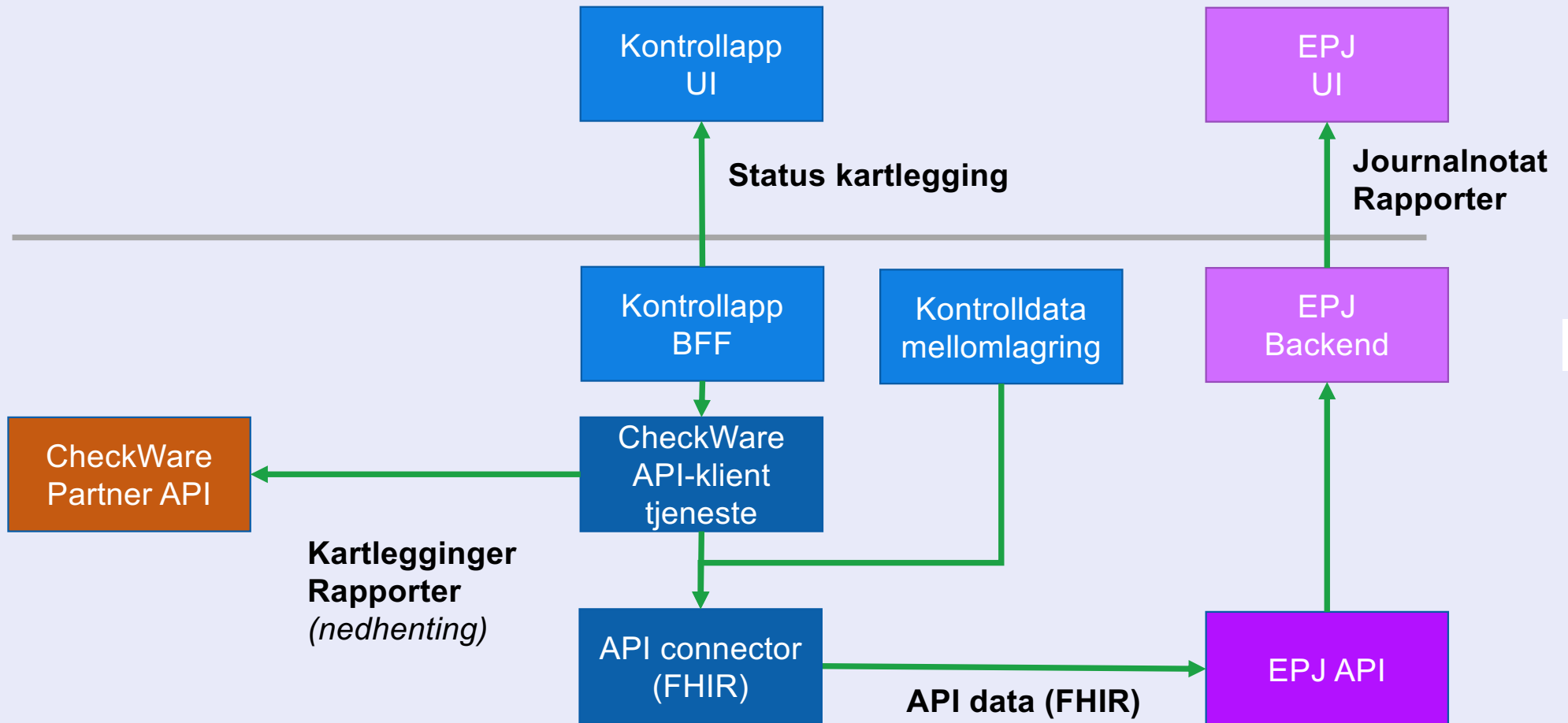
Godt begynt flyt 1: Input til CheckWare



Godt begynt flyt 2a: Sømløs journalføring via melding



Godt begynt flyt 2b: Sømløs journalføring via API



IGs – Andy

Implementation Guides

- Common set of profiles based on no-basis where appropriate
- International profiles also used
- Add to the EHG profiles for supporting new projects

The screenshot shows the SIMPLIFIER.NET website interface. At the top, there is a yellow header with the SIMPLIFIER.NET logo and navigation links for SNIPPETS, FEEDBACK, LOG IN, and SIGN UP. Below the header is a search bar and icons for Query, API, and Download. The main content area is titled 'PROJECT Egde Health Gateway' and includes a subtitle 'Egde Health Gateway FHIR facade'. There are several status indicators: PUBLIC PROJECT, FHIR R4, Scope Test NO, and Subscriptions 1. A navigation bar below the header includes tabs for Introduction, Resources, Guides, Team, Log, Issues, Dependencies, and Packages. A sidebar on the left shows 'Resource Categories' with a search bar and a list of categories, where 'Profiles' is selected. The main content area displays a list of profiles under the 'Profiles' category, ordered by Rank Score (Descending). The profiles listed are: DocumentReference - Egde Health Gateway - profile (Profile on Attachment, Egde Health Gateway DocumentReference profile, Draft, 13.3.2023), CareTeam - Egde Health Gateway - profile (Profile on CareTeam, Egde Health Gateway care team profile, Draft, 13.3.2023), DiagnosticReport - Egde Health Gateway - profile (Profile on DiagnosticReport, DiagnosticReport for Egde Health Gateway FHIR APIs, Draft, 13.3.2023), Goal - Egde Health Gateway - profile (Profile on Goal, Egde Health Gateway Goal profile, Draft, 13.3.2023), and Organization - Egde Health Gateway - profile for international use (Profile on Organization, Egde Health Gateway organization profile for organisations that are not officially registered in the Norwegian Health Network or are outside Norway. An example could be for a sample that is sent to..., Draft, 13.3.2023).

Vi forener mennesker og teknologi



Implementation Guides

- Individual project or customer IGs are developed with FSH
- Public interfaces of the FHIR facade are published to GitHub

The screenshot shows the HL7 FHIR implementation guide page for EgdeGB_IG. The page header includes the HL7 logo, the text "Affiliate | Norway", the version "0.1.0 - ci-build", and the HL7 FHIR logo. The navigation bar contains "Home", "Detail", and "Artifacts". Below the navigation bar is a "Table of Contents" section with a link to "Home". A yellow banner highlights the current version: "EgdeGB_IG - Local Development build (v0.1.0). See the [Directory of published versions](#)". The main content area is titled "1 Home" and "1 Godt Begynt Implementation Guide (GB_IG)". A "Return to top level" link is also present. A table provides metadata for the implementation guide:

Version	0.2.0	Publish date	2022-07-11
Publisher:	Egde (Egde Consulting AS)	Author:	Andy Harrison
IG namespace	https://egdeconsulting.github.io/egde-health-gateway/GB_IG/		-
Latest package definition	tbd	Last update	2022-07-15

The "1 Introduction" section describes the "Godt begynt" project, which aims to improve health services for children and young people in Agder. It includes a logo for "GODT BEGYNT BARN OG UNGE I AGDER" and a list of project goals:

- Knowledge-based assessment of children and young people's growth, development, mental health and quality of life for use as decision support in the services, and that this knowledge can be put together and used for the best interests of the child.
- Overview of how height / weight, general and socio-emotional development, mental health and quality of life are distributed in the child and adolescent population.
- To investigate the experiences of health nurses, parents, children and young people with structured and digital mapping tools.
- To investigate how the tools affect work processes and assessments and contribute to previous knowledge-based measures and collaboration.
- Systematic development of services and measures based on digital innovation and application of structured and quality-assured data.

A Norwegian description of the project can be found at <https://www.godtbegynt.no/>. The overall project is run by the University in Agder in collaboration with Agder county municipalities.

The "1 Platform and integrations" section describes the "Egde Health Platform" and "Egde Health Gateway". The "Egde Health Platform" provides patient data backend, clinic administration, secure and compliant data storage and authentication for the Godt begynt service. The "Egde Health Gateway" provides integration between the FHIR backend and the following services:

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21

Egde

Vi forener mennesker og teknologi