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Agenda

› 1. Welcome (Paul—2.5 mins)

› 2. Newcomer Introductions (Paul—2.5 mins)

› 3. FHIR and OCA: Transformation of OCA artifacts from/to FHIR resources (John/Mukund/Burak—25 mins)

› 4. Overview of EU's proposed Data Governance Act (Jan/Paul—25 mins)

   › The broad strokes of the proposed DGA (Jan)

   › ToIP Ecosystem governance = Multi-stakeholder governance (Paul)

› 5. Logistics and miscellaneous (Paul—5 mins)

   › a. News from the Operations Team

   › b. Leadership positions

   › c. Meeting schedule

Newcomer Introductions
(30 seconds!)

1. Name
2. Location / time zone
3. Affiliation(s)
4. One-sentence summary of your interest in Semantics (or one particular semantics-related issue you personally want to see solved)

Task Force/Focus Group Updates
(5 mins)

- Medical Information TF (Scott)
  - ✓ OCA-FHIR FG (John/Mukund)
- Notice & Consent TF (Mark)
- Privacy & Risk TF (Jan)

FHIR and OCA:

Transformation of OCA artifacts from/to FHIR resources

(25 mins)

Presented by: J.Walker/M.Parthasarathy/B.Serdar

https://wiki.trustoverip.org/display/HOME/OCA-FHIR+Working+Notes

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The processing

O1   [FHIR to OCA] During data retrieval from a FHIR data source: e.g. a query response from Immunization registries, or EHR's returning FHIR resources in the form of bundles in to corresponding OCA artifacts with appropriate linkages to overlays.

O2   [OCA to FHIR] During data capture e.g. via a OCA forms based web app: transforming OCA object instances such as Subset or Mapping overlays to FHIR resources in bundles as per specified requirement.

FHIR to OCA Schema Base *(known FHIR data source)*

01
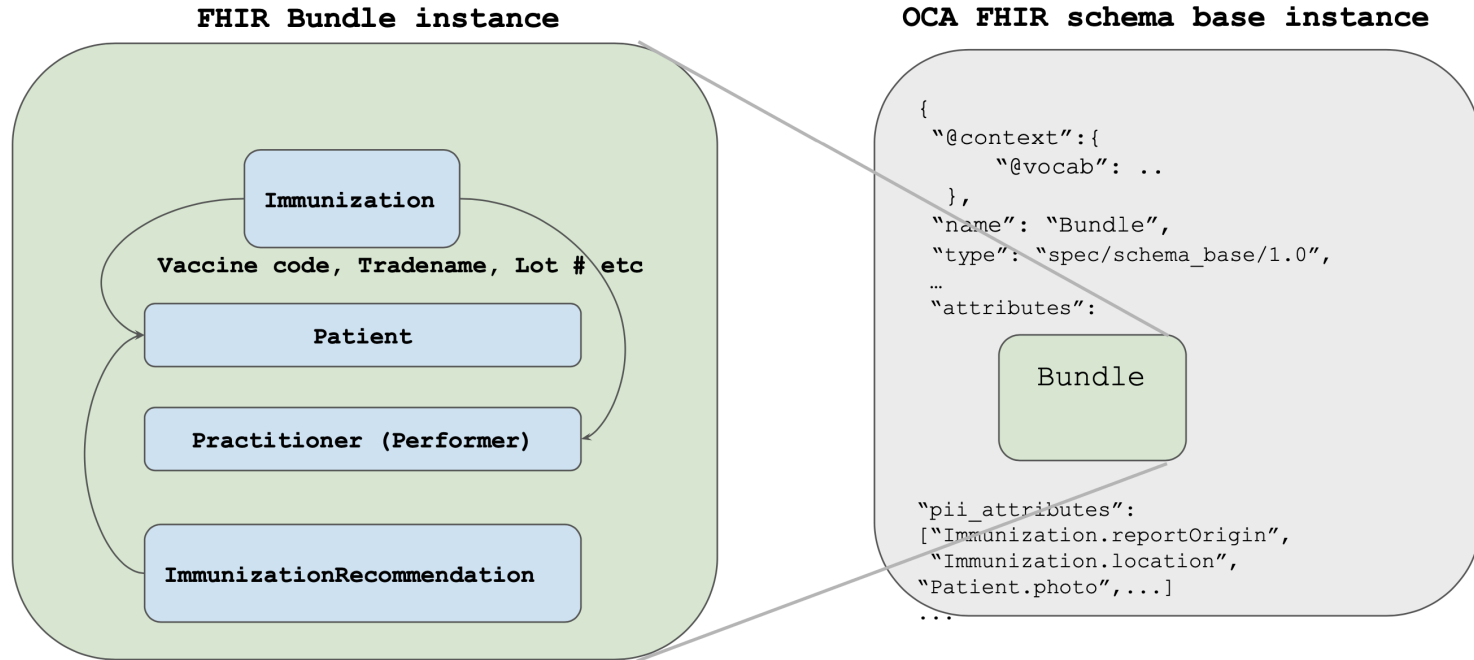
Data retrieval from a known FHIR data source:

For example, a query response from Immunization registry or EHR returning the necessary data attributes via a resource bundle.

We propose a "Projection Overlay" to encode the translation between two schema bases (from FHIR to OCA-compliant schema base).
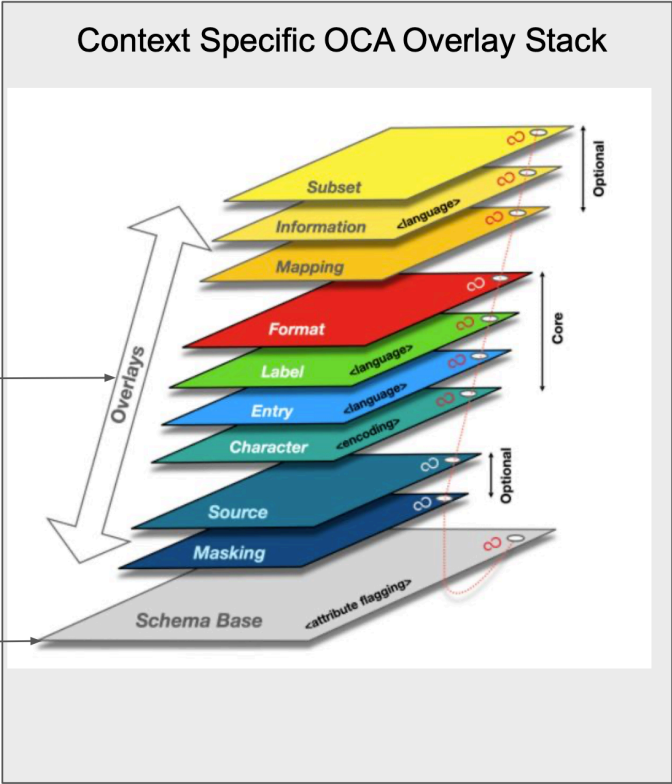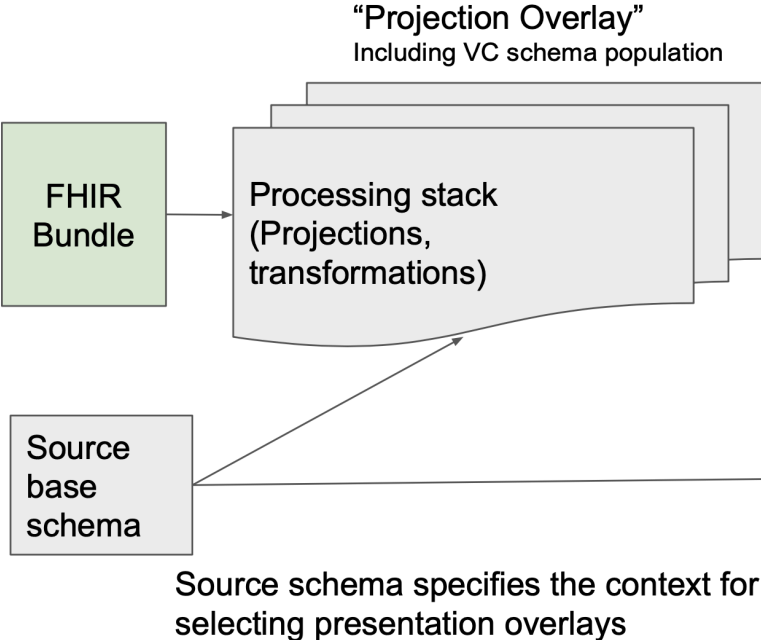
The Projection Overlay can be utilized to map the FHIR bundle to OCA instance that conform to the required base schemas.

Output from the Projection Overlay would create the OCA base schema compliant instance.

FHIR bundle to OCA schema *(Immunization query record)*

FHIR Bundle instance

Immunization

Vaccine code, Tradename, Lot # etc

Patient

Practitioner (Performer)

ImmunizationRecommendation

OCA FHIR schema base instance

```
{
  "@context":{
      "@vocab": ..
  },
  "name": "Bundle",
  "type": "spec/schema_base/1.0",
  …
  "attributes":
```

Bundle

```
"pii_attributes":
["Immunization.reportOrigin",
 "Immunization.location",
"Patient.photo",...]
...
```

FHIR Bundle to OCA

Context Specific OCA Overlay Stack

"Projection Overlay"
Including VC schema population

FHIR Bundle → Processing stack (Projections, transformations) →

Source base schema

Source schema specifies the context for selecting presentation overlays

Overlays

Subset — Optional
Information <language>
Mapping

Format — Core
Label <language>
Entry <language>
Character <encoding>

Source — Optional
Masking

Schema Base <attribute flagging>

02 Example – OCA to FHIR *(Data capture)*

You cannot capture all data to fill a valid FHIR bundle. Form captured data has to be enriched by the application to be converted to a valid FHIR bundle.

For example: Immunization date, time, administering role (performer), clinical observations, Patient identity captured in OCA Form.
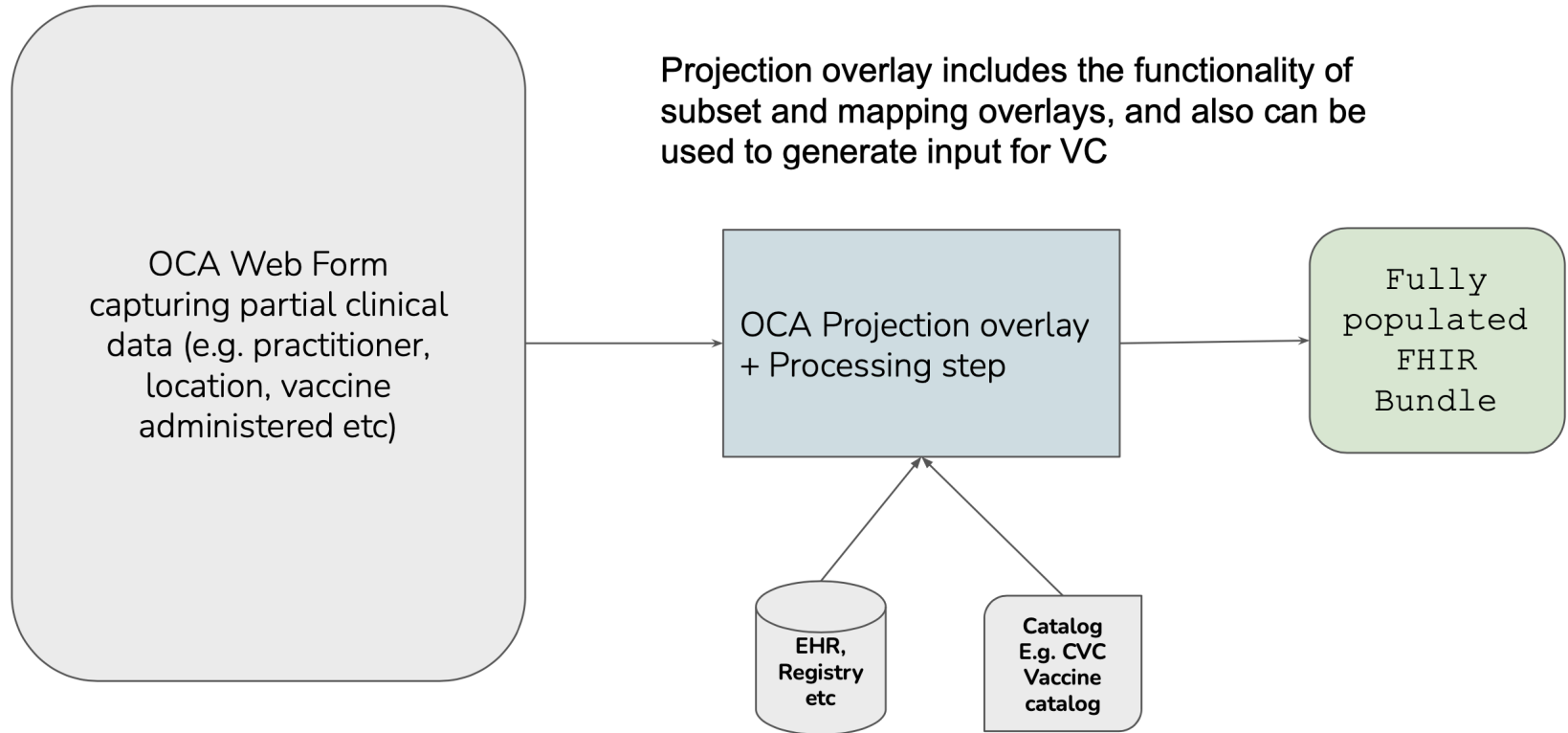
OCA to FHIR - Projection Overlay / Map approach

02

An OCA Forms based web app captures :

OCA formatted attributes are persisted in a OCA supported PDS. This would create an application specific object that can be mapped to FHIR resources to create FHIR bundles.

The Projection Overlay describes the semantic mapping between the application domain and the FHIR domain.

The application is responsible for completing the mapping of required FHIR resouce / bundle attributes, beyond data capture.
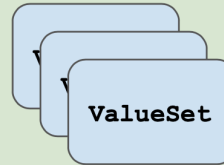
OCA form to FHIR bundle
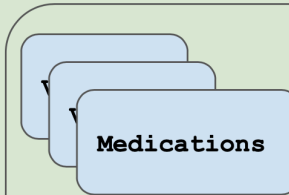
OCA to FHIR bundle *(e.g. CVC Immunization Catalog)*

OCA FHIR schema base instance

```
{
 "@context":{
      "@vocab": ..
   },
 "name": "Bundle",
 "type": "spec/schema_base/1.0",
 …
 "attributes".
```

Bundle

```
"pii_attributes": ["Bundle.timestamp"]
```
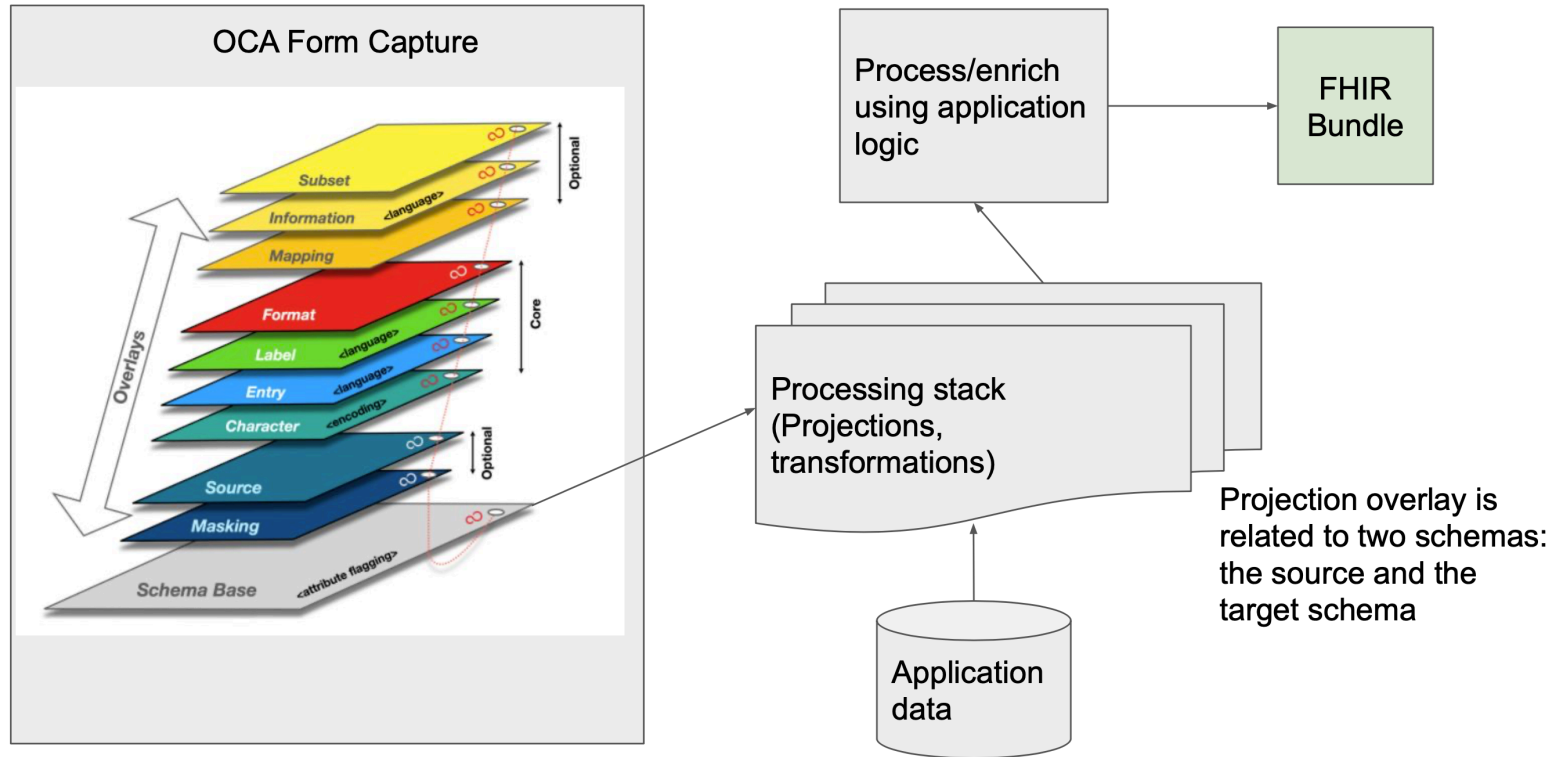
FHIR Bundle instance

ValueSet

Anatomical site, Route of admin etc

Medications

Bundle

OCA Form to FHIR bundle

OCA Form Capture

Subset — Optional
Information — <language>
Mapping
Format — Core
Label — <language>
Entry — <language>
Character — <encoding>
Source — Optional
Masking
Schema Base — <attribute flagging>
Overlays

Process/enrich using application logic

FHIR Bundle

Processing stack (Projections, transformations)

Application data

Projection overlay is related to two schemas: the source and the target schema

Example Immunization Resource *(FHIR bundle)*

```
{
    "resource": {
        "date": "2008-09-21T01:56:36-04:00",
        "encounter": {
            "reference": "urn:uuid:ebb6a629-833e-4e6d-a7f7-84a31fe5beb4"
        },
        "meta": {
            "profile": [
                "http://standardhealthrecord.org/fhir/StructureDefinition/shr-immunization-Immunization"
            ]
        },
        "notGiven": false,
        "patient": {
            "reference": "urn:uuid:5ae3535f-4cda-49e0-8769-afb9a3e72aee"
        },
        "primarySource": true,
        "resourceType": "Immunization",
        "status": "completed",
        "vaccineCode": {
            "coding": [
                {
                    "code": "140",
                    "display": "Influenza, seasonal, injectable, preservative free",
                    "system": "http://hl7.org/fhir/sid/cvx"
                }
            ],
            "text": "Influenza, seasonal, injectable, preservative free"
        }
    }
},
```

Overview of EU's proposed Data Governance Act (25 mins)

Presented by: J.Lindquist/P.Knowles

https://ec.europa.eu/digital-single-market/en/news/proposal-regulation-european-data-governance-data-governance-act

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The broad strokes of the proposed DGA

European Commission > Strategy > Shaping Europe's digital future > Laws >

Shaping Europe's digital future

LAW | 25 November 2020

Proposal for a Regulation on European data governance (Data Governance Act)

The proposal is the first of a set of measures announced in the 2020 European strategy for data. The instrument aims to foster the availability of data for use by increasing trust in data intermediaries and by strengthening data-sharing mechanisms across the EU.
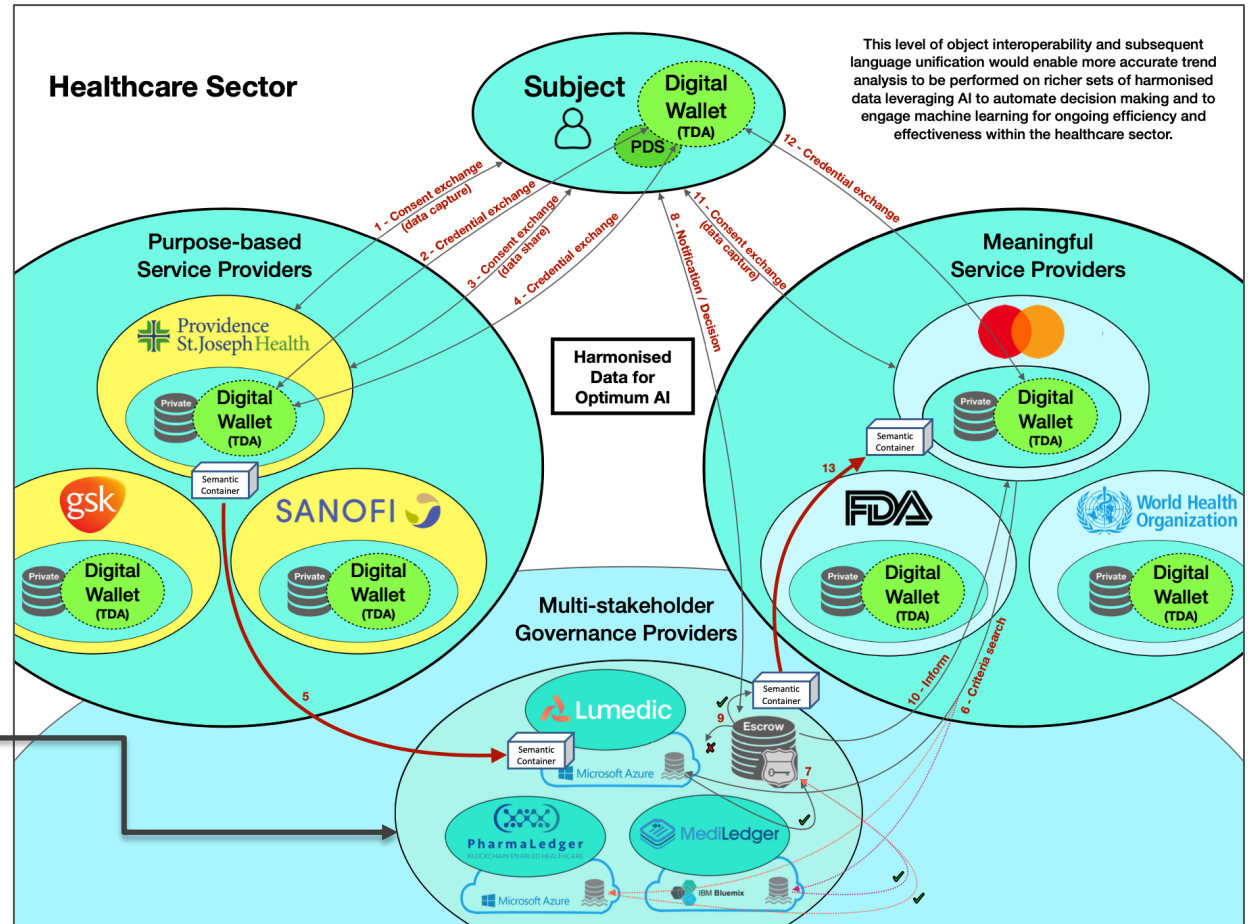
About Building a European data economy

Policies

Blog posts

Ref.: https://ec.europa.eu/digital-single-market/en/news/proposal-regulation-european-data-governance-data-governance-act

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ToIP Ecosystem governance = Multi-stakeholder governance

Ecosystem governance frameworks need to be able to adapt to the legal requirements of the jurisdictions within the ecosystem.

ToIP Ecosystems
(Data sharing provider or Cloud agency provider)

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Logistics and miscellaneous
(5 mins)

https://wiki.trustoverip.org/display/HOME/2020-12-08+Weekly+Meeting

News from the Operations Team

Nick Hayfack

(Semantics WG representative on the ToIP Operations Team)

The purpose of the Operations Team is to create a small group of ToIP members who will share information on the workplans of our WGs, help ensure that draft deliverables are advancing as intended through the stages of the ToIP workflow, resolve any bottle-necking that arise around decision-making/approvals and discuss issues such as (for example) introducing firmer parameters for the creation of Taskforces under all WGs.

The Operations Team will not be directing or otherwise interfering with the development of content and deliverables in the WGs themselves.

Leadership positions

› Semantics WG Chair

    › **Paul Knowles** (Human Colossus Foundation)

› Semantics WG Vice-chair

    › **John Wunderlich** (JLINC Labs)

› Operations Team Group Representative

    › **Nick Nayfack** (Team Ikigai)

› We can periodically rotate chairs as needed

› Volunteer via the meeting page at …

    › https://wiki.trustoverip.org/display/HOME/2020-12-08+Weekly+Meeting

Meeting schedule

› **OCA-FHIR FG** bi-weekly meeting

  › Thursday, **December 10th** @ 08:00 US PT / 17.00 CET

  › Zoom link: https://zoom.us/j/93406719136?pwd=SUozZHBQM0N5TUhYMHJqL0ZQM3l3Zz09

› **Notice & Consent TF** bi-weekly meeting

  › Thursday, **December 10th** @ 08:30 US PT / 17.30 CET

  › Zoom link: https://zoom.us/j/92346573961?pwd=RmZHNnQxS2lya3NCMHZTVXYra3Rrdz09

› **Semantics Domain WG** weekly meeting

  › Tuesday, **December 15th** @ 09:00 US PT / 18.00 CET

  › Zoom link: https://zoom.us/j/93406719136?pwd=SUozZHBQM0N5TUhYMHJqL0ZQM3l3Zz

Closing Q & A

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