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Decentralized Semantics WG Weekly Meeting

1 September 2020

 THE **LINUX** FOUNDATION

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Agenda

1. Welcome (Paul—5 mins)
2. Newcomer Introductions (5 mins)
3. Task Force/Focus Group Updates (10 mins)
4. Demo: An OCA Swagger implementation – [OpenAPI] (Robert—15 mins)
5. Topic: Transitive Trust, an alternative VC application (Paul—10 mins)
6. Topic: Creating an *Entry Lists Library* to house standard and non-standard lists of predefined entries (Paul—5 mins)
7. OCA Specification document: A preview of the first RFC (Paul—5 mins)
8. Logistics (Paul—5 mins)
 - a. Chairs
 - b. Meeting schedule

Newcomer Introductions

(30 seconds!)

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

Task Force/Focus Group Updates

(10 mins)

- Imaging TF (Scott/Moira)
- Medical Information TF (Scott/Moira)
- ✓ FHIR-OCA Object Transformation FG (John/Mukund)
- Notice & Consent TF (Mark/Sal)

Demo: An OCA Swagger implementation – [OpenAPI] (15 mins)

Presented by: R.Mitwicki

<https://repository.oca.argo.colossi.network>

<https://github.com/THCLab/odca-search-engine>

An OCA Swagger implementation

The screenshot shows the Swagger UI for the OCA Repository API. The top bar includes the Swagger logo, the file path `/openapi-2.0.0.yml`, and an `Explore` button. The main header displays **OCA Repository** with version tags `2.0.0` and `OAS3`. Below this, the `Servers` section shows a dropdown menu with the selected server `https://repository.oca.argo.colossi.network/api/v2`. The `schemas` section is expanded, showing a list of endpoints:

- `GET /schemas` Find schemas
- `POST /schemas/{namespace}` Add schema by JSON or ZIP file to specified namespace
- `GET /schemas/{namespace}` Find schemas in specified namespace
- `GET /schemas/{namespace}/{DRI}` Find schema by hashlink

Below the endpoints, there is a `Schemas` section with a dropdown menu showing `Schema >`. In the bottom right corner, there is a `VALID` button with a refresh icon.

Topic: Transitive Trust,
an alternative VC application
(10 mins)

Discussion led by: P.Knowles

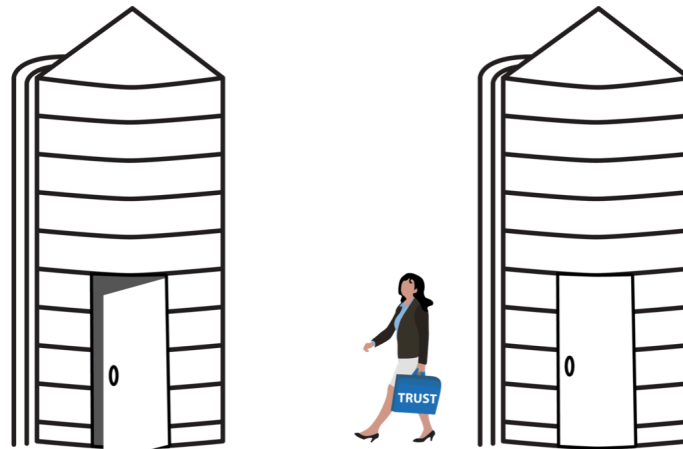
Transitive Trust

What is transitive trust?

Transitive trust: trust established in one domain is partially or completely transferable to another.

Examples:

- A **doctor** credentialed in one country is quickly authorized in another
- A **police officer** completes a traffic stop without leaving his vehicle
- **Websites** accept credentials they didn't issue that are stronger than usernames and passwords
- A **caller** transferred between departments doesn't need to re-authenticate
- Secure internet **voting**



And many more: whenever proof from a separate trust domain is required and verifications are difficult to quickly obtain. Transitive trust streamlines verifiability of information between silos of an organization or across the internet.

With SSI and verifiable credentials, transitive trust is now possible on a global scale.

Transitive Trust: an alternative VC application

```
{
  "@context": "https://odca.tech/v1",
  "name": "HashedStructure 1.0",
  "type": "spec/schema_base/1.0",
  "description": "A schema used to capture and resolve a hashed payload and corresponding
payload structure",
  "classification": "",
  "issued_by": "",
  "attributes": {
    "hashedPayload": "<hashlink>",
    "payloadStructureID": "<hashlink>"
  },
  "blinding_identity": [
    "hashedPayload"
  ]
}
```

Topic: Creating an *Entry Lists Library* to house standard and non-standard lists of predefined entries
(5 mins)

Discussion led by: P.Knowles

<https://editor.oca.argo.colossi.network>

OCA Specification document:
A preview of the first RFC
(5 mins)

Presented by: P.Knowles

<https://the-human-colossus-foundation.github.io/oca-spec/>

<https://github.com/the-human-colossus-foundation/oca-spec>

OCA Specification document

A specification template for collaborative input to enable a roadmap for OCA requirements

Unofficial Draft

TABLE OF CONTENTS

- 1. Introduction
 - 1.1 Overview
 - 1.2 Benefits
 - 1.3 Example of similar construct
- A. Security Considerations
- B. Privacy Considerations
- C. Resources

OCA Specification

Overlays Capture Architecture

Unofficial Draft 11 August 2020

ReSpec

HUMAN COLOSSUS FOUNDATION

Latest editor's draft:
<https://github.com/the-human-colossus-foundation/oca-spec>

Editor:
[Robert Mitwicky](#) (The Human Colossus Foundation)

Authors:
[Robert Mitwicky](#) (The Human Colossus Foundation)
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Participate:
[GitHub the-human-colossus-foundation/oca-spec](#)
[File a bug](#)
[Commit history](#)
[Pull requests](#)

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Abstract

The post millennial generation has witnessed an explosion of captured data points which has sparked profound possibilities in both Artificial Intelligence (AI) and Internet of Things (IoT) solutions. This has spawned the collective realization that society's current technological infrastructure is simply not equipped to fully protect personally identifiable information (PII) or to entice corporations to break down internal data silos, streamline data harmonization processes and ultimately resolve worldwide data duplication and storage resource issues.

The FAIR Data Principles are a set of guiding principles in order to make data findable, accessible, interoperable and reusable (Wilkinson et al., 2016). These principles provide guidance for scientific data management and stewardship and are relevant to all stakeholders in the current digital ecosystem.

In line with the FAIR principles, data harmonization and interoperability processes between internal departments and functions is a high priority for corporate organizations but the current cognitive framework available for data

Ref.: <https://the-human-colossus-foundation.github.io/oca-spec/>

Ref.: <https://github.com/the-human-colossus-foundation/oca-spec>

OCA Specification document: A preview of the first RFC

OCA_paper.DOCX ☆ 📁 🌐
File Edit View Insert Format Tools Help Last edit was yesterday at 7:07 PM

←

- Overlays Capture Architectur...
- ABSTRACT
- INTRODUCTION: OCA, a com...
- OVERLAYS CAPTURE ARCHI...
- METHOD
- A subset overlay is an option...
- CONCLUSION & CURRENT DE...

Overlays Capture Architecture (OCA): Providing a standardised global solution for immutable data capture

Paul Knowles, Human Colossus Foundation

ABSTRACT

The post millennial generation has witnessed an explosion of captured data points which has sparked profound possibilities in both Artificial Intelligence (AI) and Internet of Things (IoT) solutions. This has spawned the collective realisation that society's current technological infrastructure is simply not equipped to fully protect *personally identifiable information* (PII) or to entice corporations to break down internal data silos, streamline data harmonisation processes and ultimately resolve worldwide data duplication and storage resource issues.

The [FAIR Data Principles](#) (Wilkinson et al., 2016), a set of guiding principles to make data findable, accessible, interoperable and reusable, provide guidance for scientific data management and stewardship and are relevant to all stakeholders in the digital economy. In light of current data management deficiencies, *Overlays Capture Architecture* (OCA) was born in accordance with the FAIR principles and courtesy of practical knowledge and experience gained from managing data within the complex realm of clinical trials. This blog post provides an introduction to OCA, an architecture purposefully designed to act as a catalyst for data language unification and a seed component in the enablement of a new [dynamic data economy](#) (DDE).

The cognitive framework available for data management requirements across all industry sectors continues to be hampered by limitations to the foundational structure of currently deployed electronic capture solutions. In terms of schema design, OCA represents a schema as a multi-dimensional object consisting of a stable schema base and interoperable overlays. By introducing overlays as task-oriented linked data objects within the schema stack, OCA offers an

Chairs

- › As a Working Group, we elect our own chairs
 - › At least one, and up to three
 - › Two or three is recommended to spread out the load
- › We can periodically rotate chairs as needed
- › Volunteers now?

Meeting schedule

- › Call timing
 - › **ToIP Decentralized Semantics WG**
Every Tuesday starting
09:00 PT, 12:00 ET, 17:00 UK, 18:00 CET
- › Next meeting
 - › September 8th, 2020



Closing Q & A

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