

# IETF Hackathon

**IETF 116 Hackathon March 25-26,  
2023 Yokohama, Japan**



# Hackathon Plan

- Spec hacking: SCITT Architecture
- Code hacking: test the current state of the architecture with real-world implementations

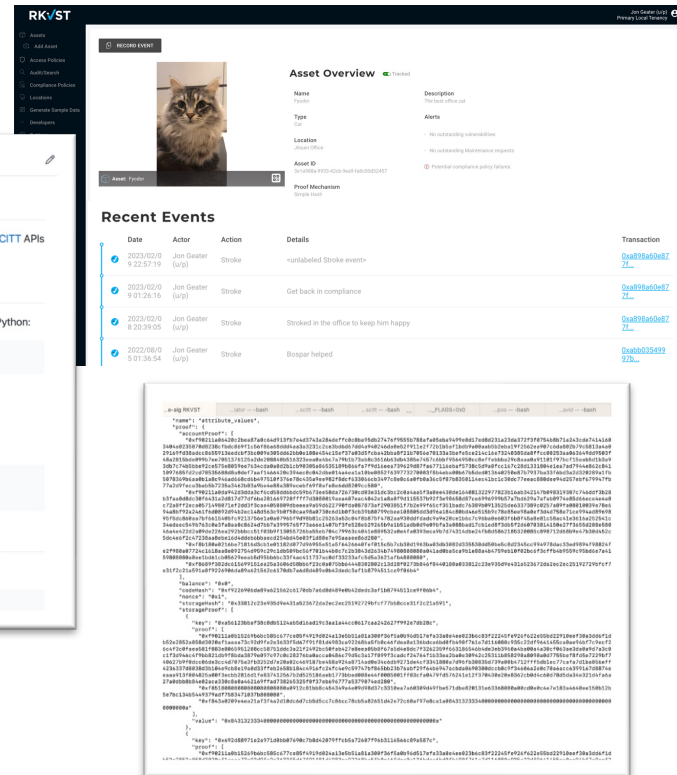
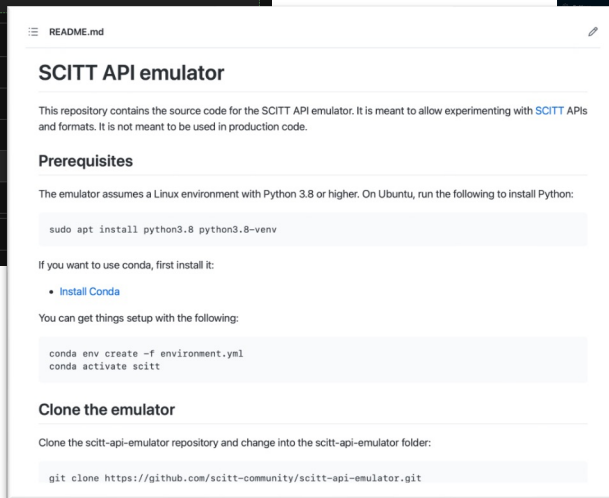
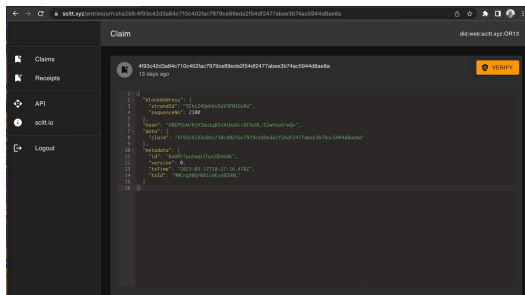
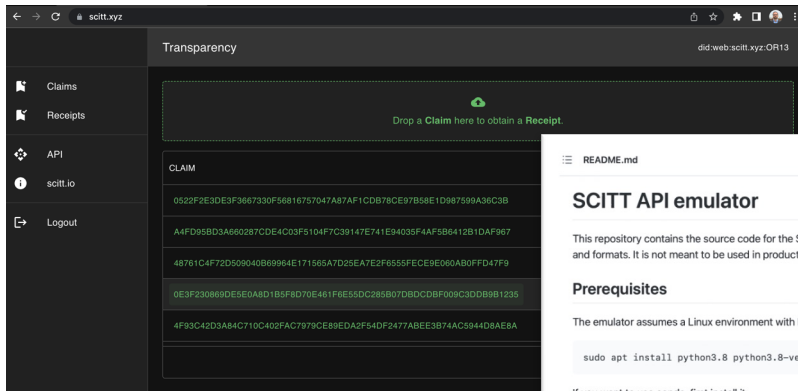
# What got done – architecture doc

- What was achieved?
  - Lots of new issues raised!
  - Lots of new common understanding reached
  - Some complex areas becoming clearer:
    - Organization of the Work Group deliverables
    - Registration policy transparency
    - Fine details of structures (what goes where)

# What got done - code

- 2.5 implementations proving out the current state of arch
  - Testing practicality of interface flows
  - Testing practicality of data structures
  - Testing interoperability of interface and data structures
    - BUT NOT PAYLOAD INTEROPERABILITY!

# What got done - code



# What got done - code

Register Claims and  
arrange into Feeds

## SCITT API emulator

This repository contains the source code for the SCITT API emulator. It is meant to allow experimenting with SCITT APIs and formats. It is not meant to be used in production code.

### Prerequisites

The emulator

sudo apt

If you want to

• Install C

You can get things setup with the following:

```
conda env create -f environment.yml
conda activate scitt
```

### Clone the emulator

Clone the scitt-api-emulator repository and change into the scitt-api-emulator folder:

```
git clone https://github.com/scitt-community/scitt-api-emulator.git
```

Register Claims and  
arrange into Feeds

### Recent Events

| Date                  | Actor           | Action | Details                                | Transaction                     |
|-----------------------|-----------------|--------|--|---------------------------------|
| 2023/02/08 12:27:19   | Jon Gaster (wp) | Stroke | untitled Stroke event                  | <a href="#">0x0898a0e271...</a> |
| 2023/02/08 8:01:26:16 | Jon Gaster (wp) | Stroke | Get back in compliance                 | <a href="#">0x0898a0e271...</a> |
| 2023/02/08 8:20:39:05 | Jon Gaster (wp) | Stroke | Stroke in the office to keep him happy | <a href="#">0x0898a0e271...</a> |
| 2023/08/01 8:01:36:54 | Jon Gaster (wp) | Stroke | Bosper helped                          | <a href="#">0x080354992b...</a> |

Get Receipts and  
verify

Get Receipts and  
verify offline

# What got done - code

- 2.5 implementations proving out the current state of arch
  - Broadly demonstrated practicality of interface flows
    - Statement → Claim → Receipt → Offline Verify
  - Broadly demonstrated practicality of data structures
    - OIDC → COSE claims → CBOR receipts
    - COSE is great for expressing and serializing the structures, but was a bit awkward for passing across application boundaries
  - Broadly demonstrated interoperability of interface and data structures
    - Single reference client implementation worked with both (and itself!)
    - Transmute and RKVST implementations structurally very similar

# What we learned

- Identity continues to be a hot issue
- Access Control is trickier than we imagined
  - Particularly as it's 2-way
- Words matter!
- We're on a good track :-)



# Wrap Up

## Team members:

- Kay Williams
- Henk Birkholtz
- Orie Steele
- Roy Williamson
- Cédric Fournet
- ---
- Maik Riechert
- Mike Procock
- Steve Lasker

It's early days!

Please review and support