2019-09-11-A Aries Working Group Call (US morning)

Summary:

- The right place to create an Anoncreds library: shared libraries export C-callable API, but the language doesn't matter (C, Rust, Go)
- Aries-Framework-Go has a Verifiable Credential package that could be made available to other frameworks
- Building a generic DIDDoc parser
- Aries-Wallet is probably the right shared library to build first

Note: This call is Recorded. Recordings posted at the bottom of the page.

Date

11 Sep 2019 (7AM Los Angeles, 10AM New York, 3PM London, 17H Moscow)

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Attendees

- Name (organization) <email>
  - John Callahan (Veridium) <jcallahan@veridiumid.com>
  - Ken Ebert (Sovrin Foundation) <ken@sovrin.org>
  - Richard Esplin (Evernym)
  - Samuel Smith (ProSapien) <sam@samuelsmith.org>
  - Troy Ronda (SecureKey) <troy.ronda@securekey.com>
  - Stephen Curran (Cloud Compass/BC Gov) <swcurran@cloudcompass.ca>
  - Mike Lodder (Sovrin Foundation) <mike@sovrin.org>
  - Rebecca Christman <rebeccachristman@gmail.com>

Welcome / Introductions

Announcements

- Community project: Aries RFCs - process to move HIPES; RFCs that have been moved concepts / features / pull requests.
- Aries Workshop/Connectathon December 3-5 in Provo, Utah (details to follow)
- IIWF
- Hyperledger Maintainers Conference: Minneapolis in October.
- Bootcamp Russia: Event Location

Summary of Prior Calls and Related Meetings

- Aries WG
- Indy
- Ursa
  - Question for the Indy team on testing and deploying debian packages

Release Status

- Aries-CloudAgent-Python (bc.gov) - Release 0.3.2 has been tagged and is on PyPi
  - Support for RFC 0036 and RFC 0037 Credential Exchange protocols, 0.1 version of those protocols deprecated
  - Working on next release, particularly on revocation support.
- Aries-Framework-Go (Troy)
  - First milestone: Framework Go v0.1.0
  - Weekly planning notes
- Aries-SDK-Ruby (Jack)
  - Released as a Gem (0.0.3) due to Rails 6 issues
  - Developed docker image with Rails 6 (Ruby 2.5.1) with Indy-SDK to test Aries-SDK-Ruby via Dokku deployment
Needed for exploring concurrency and compatibility issues with Sidekiq, Resque, SuckerPunch, etc.

- Aries-Framework-DotNet (Tomislav)
- Moved from StreetCred to Aries: https://github.com/hyperledger/aries-framework-dotnet
- Aries-StaticAgent-Python - Release 0.4.0
- Move from Pysodium PyNacl
- Improved module interface and routing.
- Aries-SDK-Python - Wrapper from JeromK and SBCA?
- Aries-SDK-Java
- Aries-SDK subchannel / discussion aries-sdk-java
- Aries-SDK-JavaScript
- People are collaborating in the repo.

- Indy
- Ursa

- Working on release of 0.2.0 (September / October)
  - ZKP / ZKLang improvements
  - Debian packages
  - Refactor internal plumbing for anoncreds 2.0, shouldn't impact external interfaces
  - Refactor multi-signature BLS in addition to aggregated signature

- Sovrin Foundation is looking to build a Indy specific Ursa, with ZKPs. Other Aries clients would build a different Ursa.

**Work Updates**

- Rich Schemas and W3C Verifiable Credentials (Ken)
  - Working on context object in Node. PR for Indy-Node is almost ready for review.
  - Making progress on the new schema object.
  - In order to do the review, need new Indy HIPEs: each new object, the new flow for creating credentials, creation of presentation request and presentation, compatibility with the old credential format

- SDK 2.0 architecture / Indy-Aries split (Sergey)
  - http://jira.hyperledger.org/browse/IS-1285
  - https://docs.google.com/document/d/1MYMi4NkixfoJeC79WBOIX_QA3_9rG-iK3iZa86vR0/edit#heading=h.z1u0dzf62oi POA and discussion
  - https://docs.google.com/drawings/d/1d-aCRC_Nzyvv9nyQif9_vBGbeWhp69M4T5_6_yYAI/edit?usp=sharing Indy SDK Migration box diagram
  - https://docs.google.com/drawings/d/1sUfRPrpPjngeeRjBiV9Eik3CNihi9Uqym8mU4M/edit?usp=sharing Aries Architecture
  - https://hackmd.io/@BhJewTISuQjMGNDc4SvgnNxw?edit#developing ideas around APIs
  - Aries Presentations
  - https://hackmd.io/@gjPgYQjMT3azdpSAFgo5PA/HyjVdhVGr Daniel B's proposal for separating wallet and crypto
  - https://docs.google.com/document/d/18kHgTsFhkkW9ckbampv8RxKzXNhWycihHnXGyxtk/edit# Daniel H's analysis of challenges and approaches

- Architecture of Aries Verifiable Credentials Proof Formats
  - Boundary between the claim type and the signature type
  - Where should it live? Anoncreds (ZKP)s, JWEs, Link Data Signatures

- Aries Anoncreds Framework

**RFC Progress**

**Other Business**

- Aries shared libraries export their API as C-callable, but the implementation language doesn't matter: C, Rust, Go
- DIDDoc parser in Rust:
  - https://crates.io/crates/did_doc
  - https://github.com/dhuseby/did
- What is the next step we can take:
  - Richard's proposal for order of work
    - Move Indy-SDK into Aries-Core (October release)
    - Split out wallet into Aries-Wallet (November release)
    - Define the resolver interface (November effort)
    - Split out resolver into Indy-Resolver (December release)
  - Questions
    - Iterative approach: do something that we can improve on.
      - Start with the needs of the agents (Aries-Cloud-Agent) and build the Aries core architecture from that.
      - Maintain Indy-SDK alongside Aries-Core / Aries-Wallet / Aries-Resolver?
      - Who will be the maintainers of the new libraries? Do we want cross-organization PR reviews?
      - Best way to maintain history, and make the reorg transparent
        - History continues public in Indy-SDK, so might be better to start clean in Aries
        - Concerns with old DCO process: can use Mike Lodder's approach he used for moving indy-crypto to ursa
      - What to do with the Indy CLI?
      - CI / CD in Jenkins or GitLab?
  - Daniel's proposal for order of work
    - Split out Indy wallet into Aries-Wallet
    - Define the resolver interface and create the resolver libraries (indy and peer)
      - The peer DID resolver isn't dependent on other libraries https://github.com/dhh1128/pypeerdid
    - Wait on Aries-Core
  - Architecture of Aries core library
What is our fastest path to a library that framework implementors could consider using?  
Daniel’s analysis of Aries API Surfaces  
[https://docs.google.com/presentation/d/1ODlHCeB6x7yVGLfhyJHFUKn0l070sqXxhI1C8M7jTY/edit?ts=5d658905#slide=id.p](https://docs.google.com/presentation/d/1ODlHCeB6x7yVGLfhyJHFUKn0l070sqXxhI1C8M7jTY/edit?ts=5d658905#slide=id.p)  
Background in previous meetings: July 31, August 14  
Progress of Ken’s POC  
Key questions: [https://docs.google.com/document/d/1w_n8EztyLbNIRa3FJuN8YXKUISYRI6p_6jig6jy/edit#](https://docs.google.com/document/d/1w_n8EztyLbNIRa3FJuN8YXKUISYRI6p_6jig6jy/edit#)

**Future Topics**

- Next call
- Other:
  - Hubs vs Agents
  - Payments in Aries
  - wallet query language
  - IOT best practices (Robert Mitwicki, Adam Burdett, Lohan Spies)
  - D-ID Resolution W3C and Sam’s concerns: [https://github.com/hyperledger/aries-rfcs/issues/130](https://github.com/hyperledger/aries-rfcs/issues/130)

**Action items**

- [✓] Schedule a deep dive into Aries / Indy architecture (Ken / Richard)

**Call Recording**

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