Hyperledger Aries is your complete toolkit for decentralized identity solutions and digital trust. Issue, store and present verifiable credentials with maximum privacy preservation, and establish confidential, ongoing communication channels for rich interactions. It supports multiple protocols, credential types, ledgers and registries. It has frameworks in multiple development languages, with interoperability tools and profiles to help everything work together seamlessly.

Aries is futureproofed by supporting multiple protocols, credential types, ledgers and registries. It has frameworks in multiple development languages, with interoperability tools and profiles to help everything work together seamlessly.

Key Characteristics

Privacy
- Establish decentralized credential verification and decentralized connections—give the holder more control over their information, with no “phoning home”
- Support selective disclosure, so holders only have to share the minimum amount of information
- Support Zero-Knowledge Proof (ZKP), so something can be proven (e.g. over the age of majority) without revealing the information it’s based on (e.g. date of birth)

Confidential, Ongoing Connections
- Enjoy encrypted, decentralized peer-to-peer messaging (using DIDComm) by using confidential, ongoing relationships between parties
- Support more than just issuing and presenting credentials: proactively notify holders about revoked credentials, exchange messages, and much more

Ease of deployment
- Start using ready-to-use agent frameworks in Python, Rust, Go, JavaScript and others
- Build on multiple companion projects to get started quickly, such as Aries Mobile Agent React Native (Aries Bifold) for an open-standards smartphone wallet

Flexibility
- Leverage High-level APIs so you can easily adapt your solution in the future
- Support multiple credential types, including Hyperledger AnonCreds and W3C VCs

Community
- Leverage a well-established community with a wide range of active contributors, from individuals to large-scale organizations

Learning resources
For those new to the Aries community, Trust over IP and verifiable credentials, Linux Foundation provides two courses about the concepts and technology:
- For a business perspective, please find a list of helpful links here.
- For a developer perspective, please find a list of helpful links here.

Questions?
Join the Hyperledger Discord and check out one of the many Aries project channels. (Learn more about Hyperledger Discord here)

Join the Community

- Hyperledger Aries mailing list and archives
- Hyperledger Discord Chat
- Hyperledger Code of Conduct
- Hyperledger Community Calendar

Community Meetings

For call details and agendas, see: Aries Working Group

Join this call to learn about or contribute to Aries. This complements the community's asynchronous collaboration and helps us keep everyone up-to-date and moving together. Discussion items: upcoming releases, current PRs, work that will generate future PRs, architecture changes that will impact downstream teams, project standards, best practices, design, etc.

See below for a list of links to active User Group Meetings.

Repositories, Project Management, and Issue Tracking

All Aries projects use GitHub for receiving issues, receiving pull requests and tracking releases.

*Note that while the frameworks listed below are written in a specific, identified language, for the business layer applications built on top of the frameworks can be implemented in any language.

<table>
<thead>
<tr>
<th>Repository</th>
<th>Description</th>
<th>User Group Meeting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cloud Agent Python (ACA-Py)</td>
<td>CODE: Framework for Aries, written in Python, for cloud-based deployment</td>
<td>ACA-Pug - Aries Cloud Agent-Python User Group</td>
</tr>
<tr>
<td>Framework Go</td>
<td>CODE: Framework for Aries, written in Go</td>
<td>Aries Framework Go User Group</td>
</tr>
<tr>
<td>VCX</td>
<td>CODE: Framework for Aries, written in Rust</td>
<td>Aries vcx Rust User Group</td>
</tr>
<tr>
<td>Mobile Agent React Native (Bifold)</td>
<td>CODE: Mobile Aries client built with React Native</td>
<td>Aries Bifold User Group</td>
</tr>
<tr>
<td>Agent Test Harness</td>
<td>TESTING: Test execution engine and set of tests for evaluating frameworks' interoperability</td>
<td>Aries Agent-Mobile Test Harness (AATH-AMTH) User Group</td>
</tr>
<tr>
<td>Mobile Test Harness</td>
<td>TESTING: As above, but for mobile</td>
<td></td>
</tr>
<tr>
<td>Interoperability Info</td>
<td>Website showing the current status of Aries Interoperability between frameworks and agents</td>
<td>Aries Interoperability User Group</td>
</tr>
<tr>
<td>Aries (main)</td>
<td>Summary of key repositories</td>
<td></td>
</tr>
<tr>
<td>RFCs</td>
<td>Important topics that are standardized across the Aries ecosystem</td>
<td></td>
</tr>
<tr>
<td>Interoperability Info</td>
<td>Website showing the current status of Aries Interoperability between frameworks and agents</td>
<td></td>
</tr>
</tbody>
</table>

You can also view a list of all Aries repositories. You can find current status of Aries Interoperability between Aries frameworks and agents here.

History

- Proposed by Nathan George
- Approved by the TSC on 2019-05-02
- Active status approved by the TSC on 25 FEB 2021