

OmniOne Digital ID

OmniOne Digital ID is an open source project that aims to drive global adoption and expansion of self-sovereign identity through a secure identity system based on the technology that built the Republic of Korea's national mobile ID.

OmniOne Digital ID is an open source decentralized identifier (DID) designed to provide developers with the tools they need to integrate self-sovereign identity management into their applications, built to be secure, scalable, and interoperable by adhering to the latest DID standards.

Goals

- We aim to provide a digital identity authentication system through the OPEN DID platform based on trust and responsibility to various members of the digital world.
- Through this, we reduce social costs and enable the socially excluded from the infrastructure to fulfill their "social responsibility for realizing human values."

Structure

The OPEN DID system consists of a Trust Environment for establishing a trust chain between participating entities, a Wallet for storing and managing various certificates based on Digital ID, a Digital ID that includes various certificates, and Security for data protection.

- Trust Environment: The components of OPEN DID define and develop methods for establishing a chain of trust between components to build a trust environment based on Digital IDs.
- Wallet: Define the lifecycle of the wallet and e-signs and develops the architecture for key management, storage management, access control management, and security management of the wallet.
- Digital ID: Define a data model based on W3C's Decentralized Identifier and Verifiable Credentials specifications.
- Security: Ensures a level of security that ensures the authenticity, confidentiality, and integrity of data exchanged between OPEN DID components.

Getting Started

Prerequisites

Before you begin, ensure you have met the following requirements:

- Node.js (version 14 or later)
- npm (version 6 or later)
- Git (for cloning the repository)
- A basic understanding of decentralized identities and blockchain technology is recommended.

Installation

To install OmniOne, follow these steps:

1. Clone the Repository:

```
git clone https://github.com/yourusername/OmniOne.git
cd OmniOne
```

2. Install Dependencies:

```
npm install
```

Usage

OmniOne Digital ID provides a set of commands to manage DIDs. Below are some basic usage examples:

- Start the DID Service:

To start the OmniOne DID service:

```
npm start
```

- Create a New DID:

To create a new DID:

```
npm run create-did
# Output: did:omni:123456789abcdefghi
```

- Resolve an Existing DID:

To resolve and retrieve details of an existing DID:

```
npm run resolve-did did:omni:123456789abcdefghi
# Output: { "@context": "https://www.w3.org/ns/did/v1", "id":
"did:omni:123456789abcdefghi", ... }
```

Examples

Here's how you can use OmniOne Digital ID in your project:

- Integrating with a Web Application: OmniOne can be integrated into a web application to enable users to authenticate using their DIDs.
- Cross-Chain DID Resolution: Utilize OmniOne's interoperability features to resolve DIDs across different blockchain networks.

Contributing

We welcome and appreciate contributions from the community! To contribute to OmniOne Digital ID:

1. Fork the repository.
2. Create a new branch (`git checkout -b feature/your-feature`).
3. Make your changes.
4. Commit your changes (`git commit -m 'Add some feature'`).
5. Push to the branch (`git push origin feature/your-feature`).
6. Open a Pull Request.

Please ensure that your code adheres to our [contribution guidelines](#) and is covered by tests where appropriate.

License

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Acknowledgments

OmniOne Digital ID was made possible thanks to the contributions of the open-source community and the support of various partners.

Contact

For further inquiries or support, please contact us at technical@omnione.com.

Additional Resources

- Documentation: Detailed documentation is available in the [docs](#) folder.
- Issue Tracking: Please report issues or request features via the [GitHub Issues](#) page.
- Community Discussions: Join our [community forum](#) to discuss OmniOne and decentralized identity.

Roadmap

OmniOne Digital ID is under active development. Here are some features we're planning to add:

- Support for additional DID methods
- Enhanced privacy features
- Integration with more blockchain networks
- Improved scalability and performance

Stay tuned for updates!