## Secure2FA

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## Modules of proposed system:

- 1. **API (Application Program Interface)**: API is the way of communicating with the Secure2FA server. When any website wants to implement secure2fa, they can make requests to the API and get corresponding responses.
- 2. **Encryption**: The OTP generated by the server is encrypted with the Public key of the Secure2FA client device.
- 3. **Sender**: A sender program on the server will send the generated OTP to the corresponding Secure2FA device.
- 4. **Receiver**: A receiver program on the Secure2FA client device receives the data from the sender program (running on server)
- 5. **Fingerprint Scanner**: A fingerprint scanner sensor will scan the fingerprint data from the user's finger and forwards this to the authentication module
- 6. **Authenticator**: The authentication module authenticates the fingerprint data inputed by the user and makes sure that the user is allowed to access the device.
- 7. **Decryption**: The decryption module decrypts the received data by using the private key. The decrypted data is nothing but the received OTP.
- 8. **Display/Screen**: This module is responsible for displaying the decrypted OTP on the screen of the Secure2FA device.
- 9. **Clear/Reset**: This module is responsible for clearing the screen and deleting the OTP from the memory of the device.

**Protocol Used**: CoAP(Constrained Application Protocol)