

Bio-metric Access System

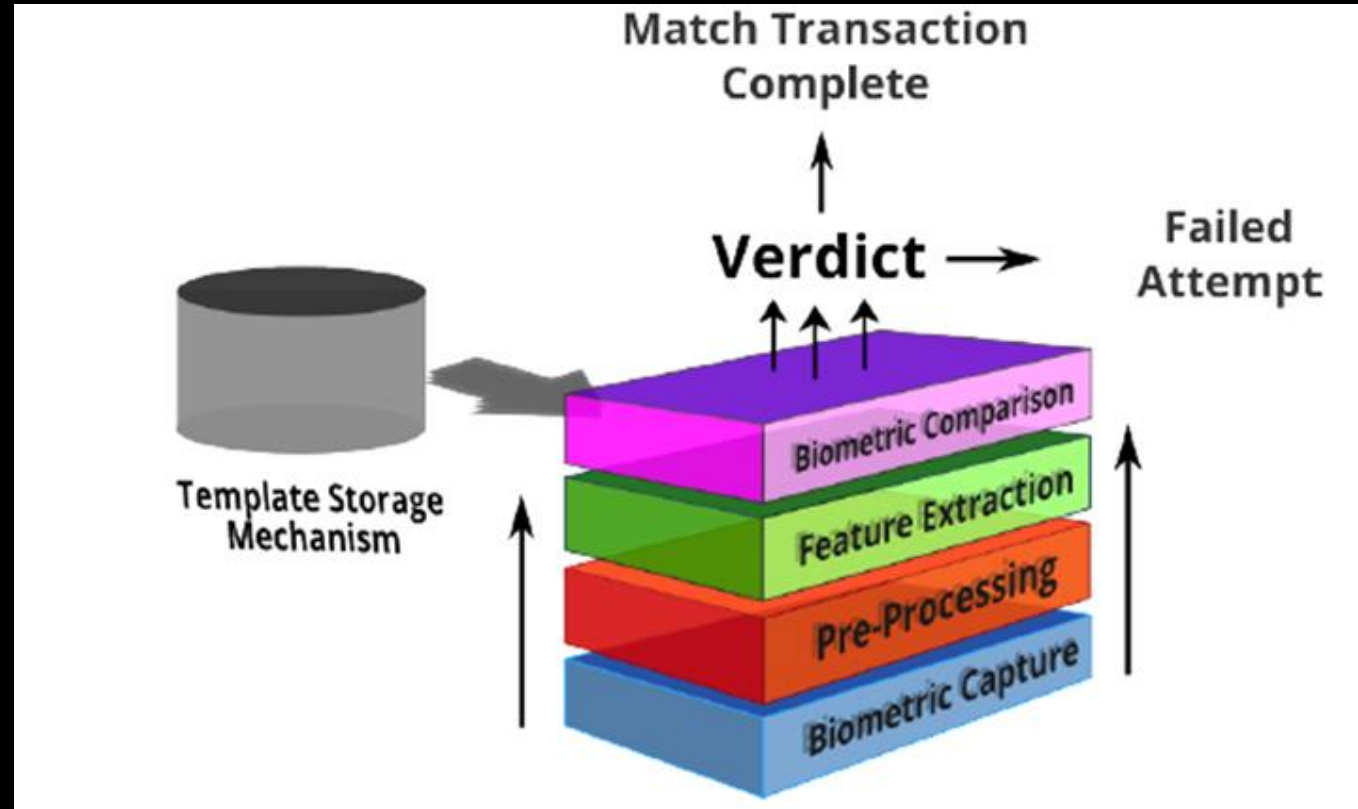
Biometric Recognition

- Vein Pattern can also be used for biometric identification
- They are Unique
- Invariant for a long time
- Nearly impossible to copy or forge

Advantages

- Detection is contactless
- Parameter is hidden from general view
- Vein patterns are very intricate so allow sufficient criteria to positively detect many subjects
- Easily collectible
- Extremely difficult to circumvent

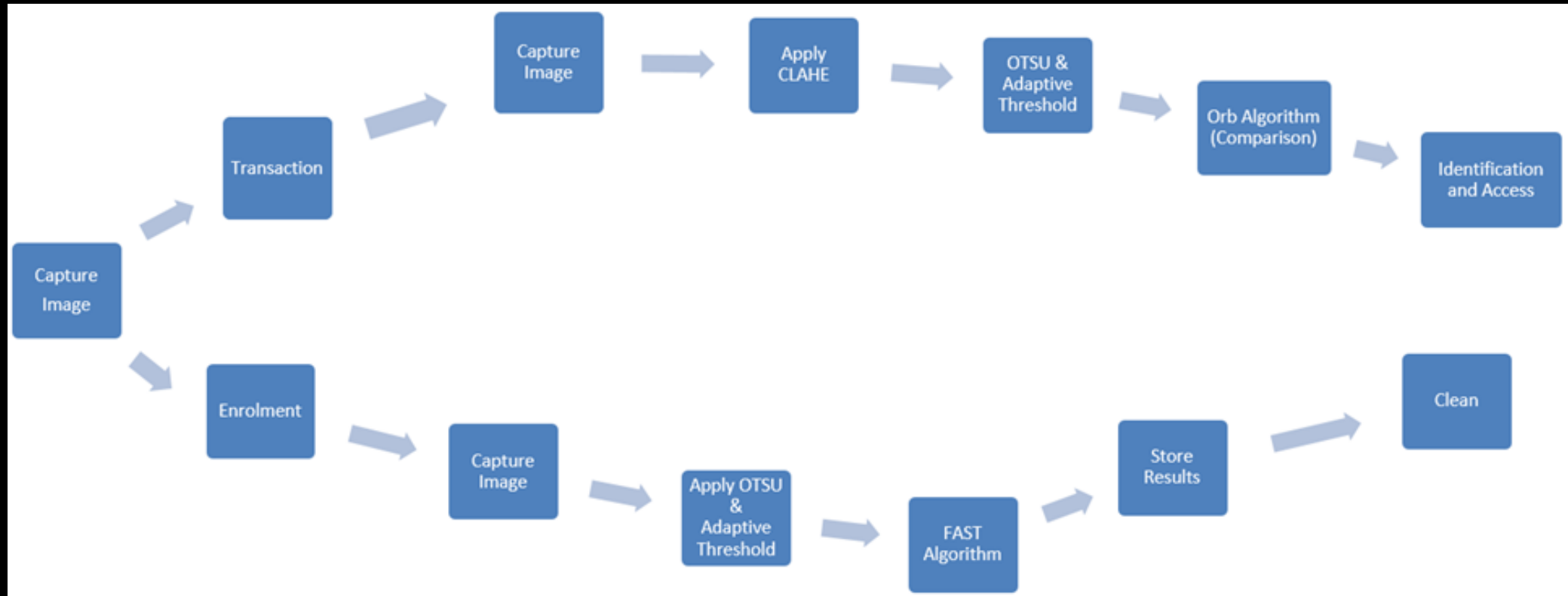
System Stack for Biometric Security System



Algorithms

- SIFT
- SURF
- FAST
- ORB

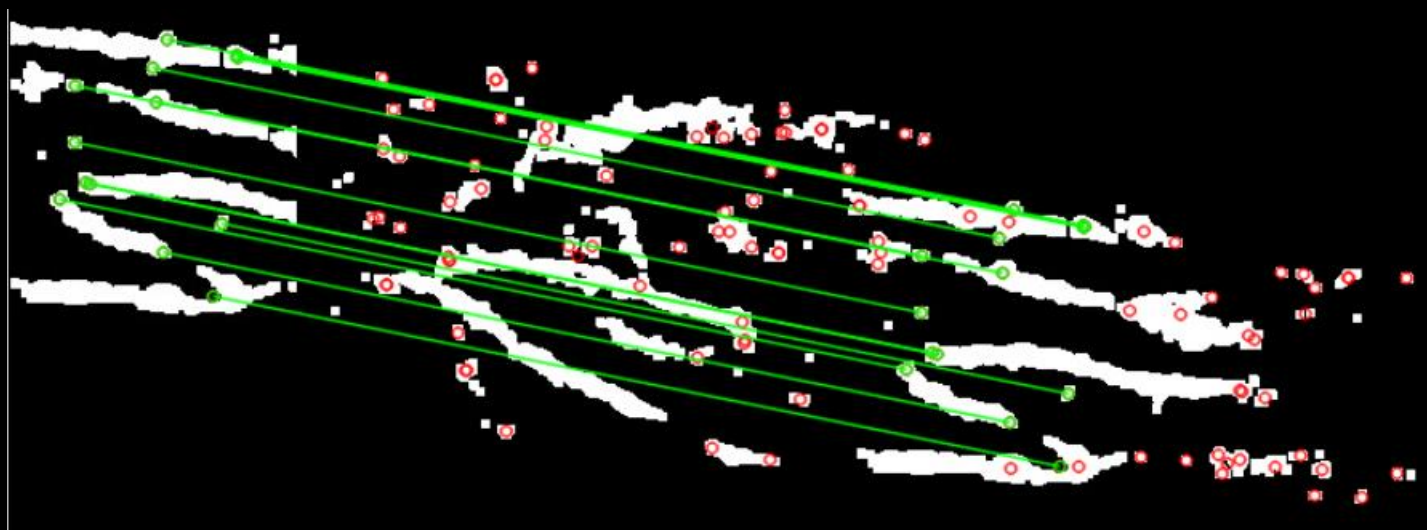
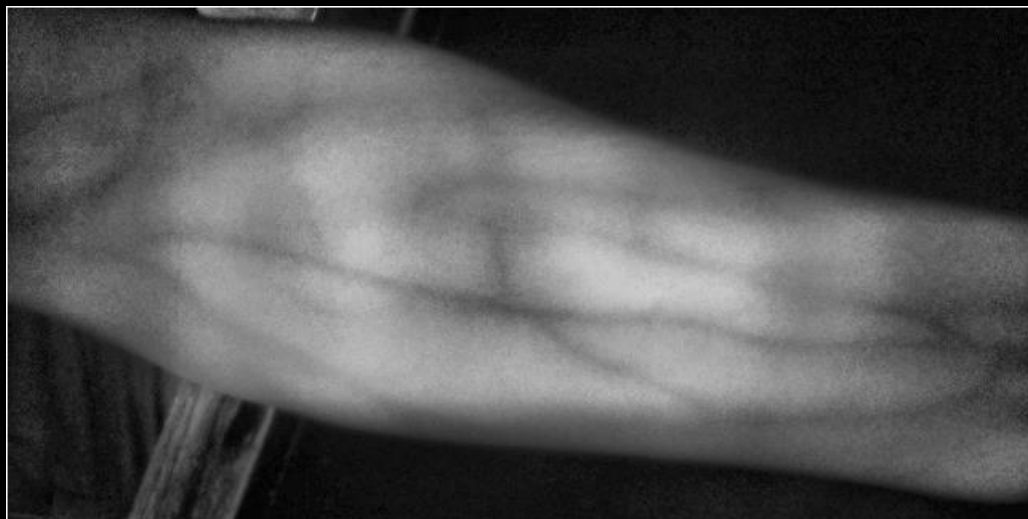
Software Flow for Biometric Recognition



Process Flow

- Enrolment: Adding user to the system
- Transaction: Identification and access decision

Results



Future Expansion

- Automation
- Projection
- Machine Learning
- Global Features