EMPEROR TECH

Innovative and Revolutionized Solutions for ID Documents from Application to Issuance to Verification

Current Challenges for ID Issuers and Service Providers Worldwide

Current Challenges for ID Issuers Worldwide

- **Biometric Data Enrollment and Application**
  - Labor Intensive with Manual and Non-Standardized Practices
  - Inconvenience and Time Consuming
  - Long Queues waiting in Service Halls
- **eDocument Personalization**
  - Lack of Innovative and Advanced Security / Technological Breakthroughs
  - Black and White Laser Engraving on Polycarbonate
  - Huge, Expensive and Inflexible Machinery
  - Low Capacity Throughputs with Heavy Reliance on Expensive Maintenance Services
- **eDocument Issuance**
  - Long Leadtime with Centralized and Decentralized Dispatch (Average 1 month)
  - Labor Intensive with Manual Sorting, Storage, ID Verification and Matching
  - Inconvenient Pickup or Costly Registered Mailing
  - Very Troublesome Overdue eDocument Management
  - Risky and Costly Secured eDocument Transfers

Re-Defining Smart ID Management

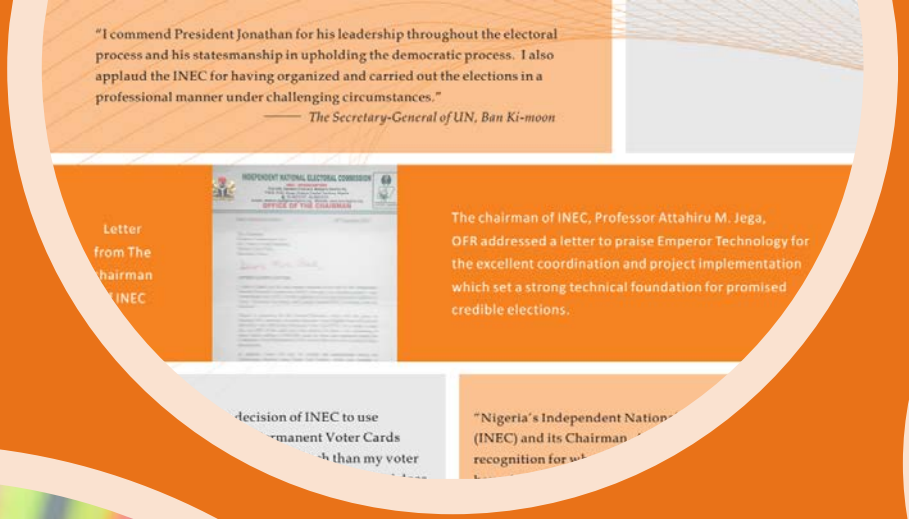
Smart ID Management Era has arrived!

What ID Issuers are wishing for:

- Digitalization with Services and Data go to People
- AI Revolution with Minimal Efforts from People
- Recognitions from Top and People
- Citizens Centric, Innovative & First Mover Branded Images
- Services Leadtime Championship
- Customer Satisfaction & Word of Mouth Enhancement
- Peace of Mind
- Safer and More Secured Features and Transactions
- Lower Cost of Ownership
- Overall Savings from Operations

In Less than ONE Minute…

- A Full ICAO Compliant Photo is Taken
- All Personal & Biometric Data are Enrolled
- New Personal ID Registration is Done and Approved
- Personalization of a Secured and Technological Advanced eDoc is Done
- An Old eDoc is Renewed to a New eDoc
- A New eDoc is Dispensed
- A Physical eDoc is Digitalized and Secured as a Digital eDoc in Mobile Device(s)
- Secure Transactions of All Value Added Public Services are done ONLINE!



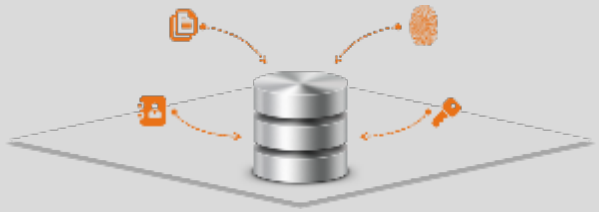
Advanced Technologies Boost Higher Efficiency, Better Convenience, Stronger Democracy, Higher Values and User Satisfaction

How EMPTECH is Revolutionizing the ID Industry and Digitalizing the Public Value Added Services ?

ID Value and Management Chain

Application

Data Management



Dispensing

1

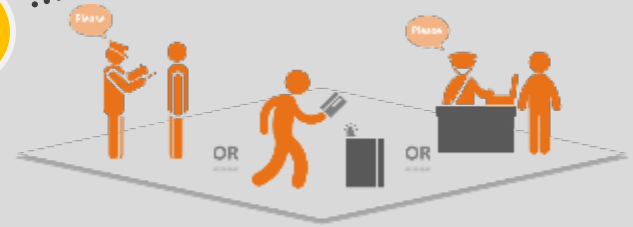
2

3

4

5

6



Enrollment

Personalization

Verification

Smart Application

- Secure Tablets
- eKYC Kiosks

1. Contactless Reader
2. Fingerprint Scanner
3. Front Camera
4. Touch Screen
5. Contact Reader
6. USB Port
7. Main Power Port
8. Headphone Jack
9. Micro USB 2.0 OTG
10. Back Camera
11. LED Flash
12. Power Button
13. Speaker & Microphone
14. Volume Button
15. Micro SD Card & SAM Cards
16. ePassport and eID Readers

Smart Biometric Data Enrollment – Mobile Devices

- Suitcase Style Designed
- Portable
- Multi-Function
- Mobile Enrollment

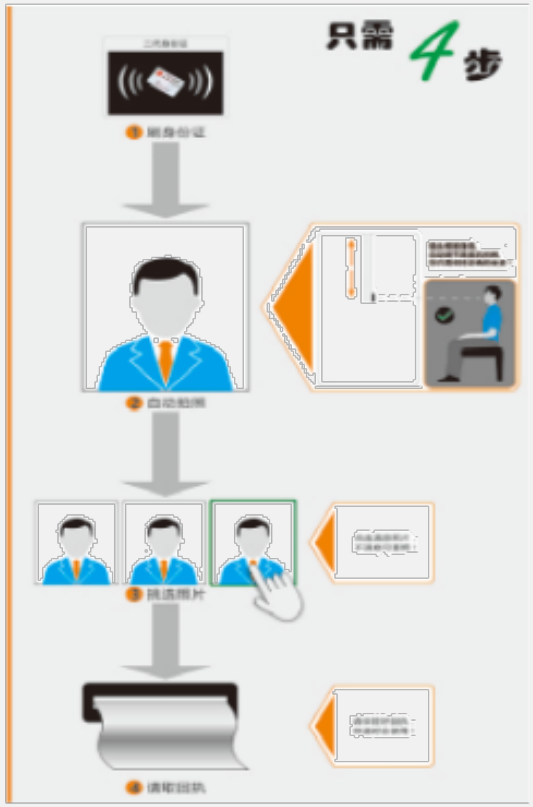
Biometric Data Enrollment Terminal

- Fingerprint Registration
- Photo Capture
- Image Processing
- Automatic Camera Height Adjustment
- Automatic filing
- MTBF >= 10,000 hours

Smart Enrollment - Photo Booth

Automatic Camera Height Adjustment and Auto-focusing system

User-friendly Operation

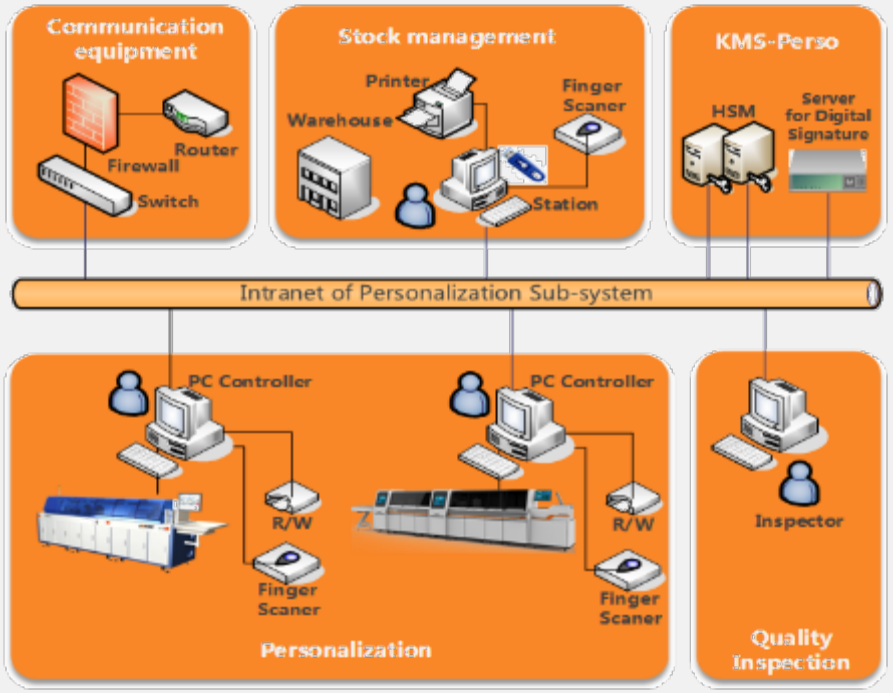


4 Steps to get a full ICAO-Compliant Photo

Fully Automatic Biometric Data Enrollment Kiosks

Smart Enrollment Centre

eDocument Personalization



- Support Centralized or Decentralized Personalization
- Highly Customized with Modular Design
- High Speed
- Technology Breakthrough with Color Photo on Polycarbonate

Laser - UV - Inkjet - Thermal

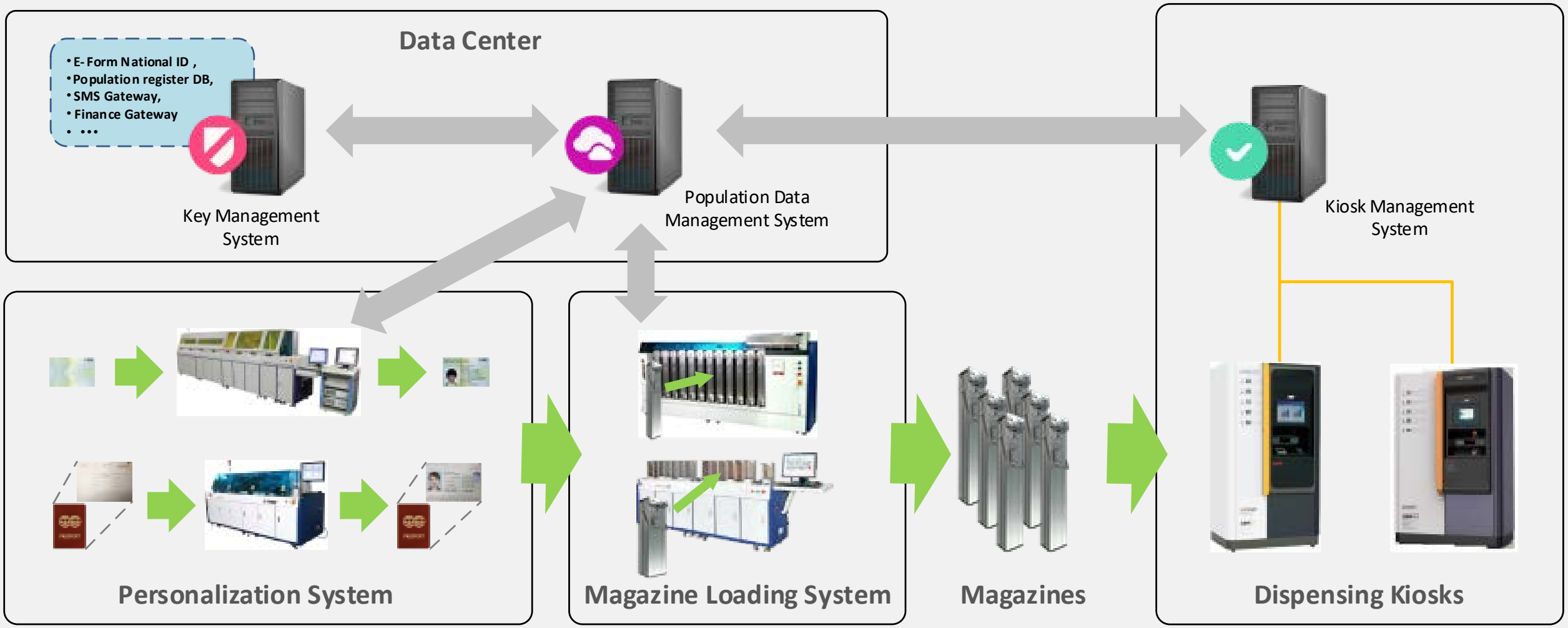
Electronic ID Document Perso

eID and ePassport Personalization

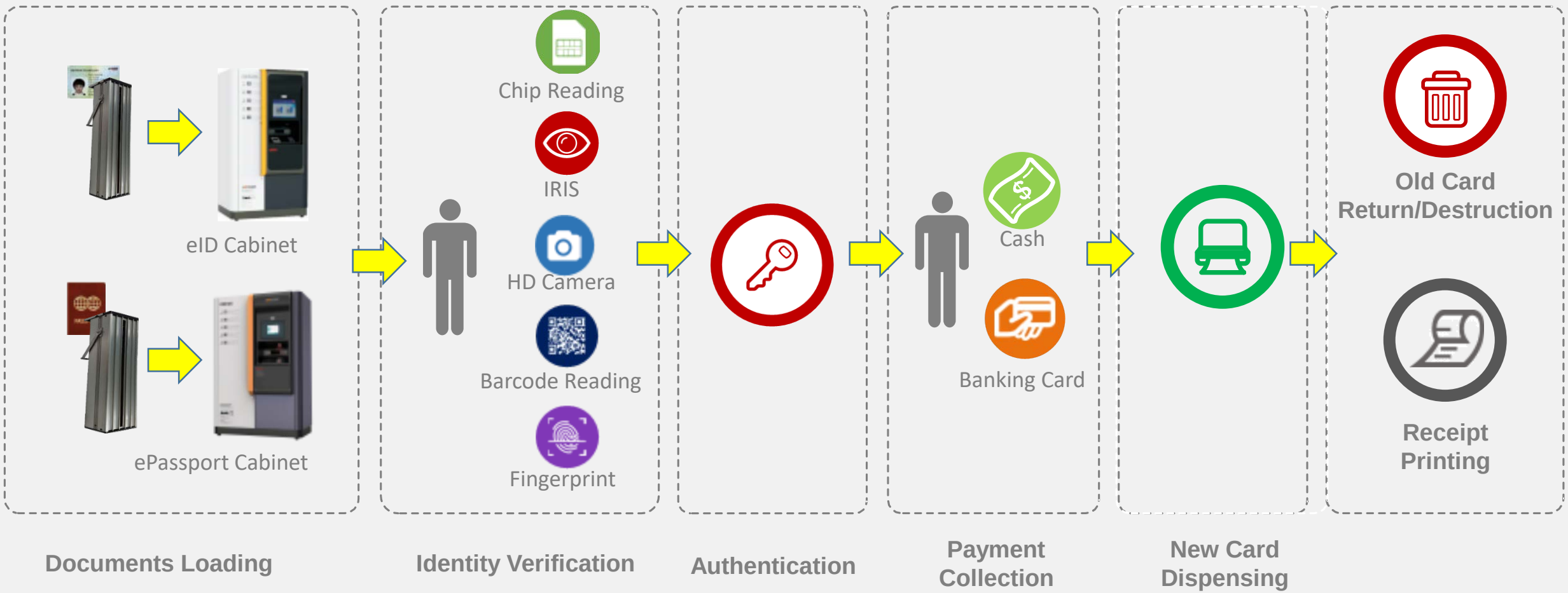
- Overlay
- Security Reinforcement
- Color Printing
- Hot Lamination
- Punching
- Chip Encoding
- Quality Operations

011101000
01000010011101000
0100001001000010011101000

Sorting and Delivery before Dispensing



eDocument Dispensing Flow



eDocument eCabinets

Smart Dispensing / Issuance Kiosks

eDocument Dispensing Kiosks

Mobile Identity Verifier

- Security & Easy Operation
- Ergonomic Design
- Comprehensive Functions
- Mass Production Proven Performance

Portable eID Document Reader

- Portable
- MRZ & Chip Reading
- Passport & ID cards

eID Document Reader

- Automatic document detection
- Full-page document scanning
- Core OCR technology with advanced algorithm
- ICAO DOCC9303 Compliant
- High resolution imaging-visible white, Infrared, UV illumination
- Single-step document verification with higher security and speed

Facial Recognition Terminals

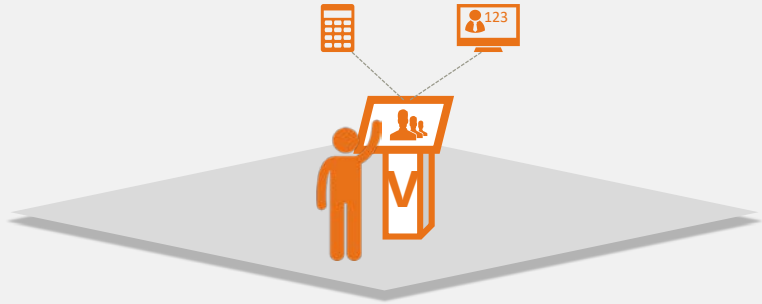
Smart Electronic Election

Traditional vs. Electronic

Traditional Voting

- Huge Workforce & Resources Allocation
- Human Interactions and Manipulations
- Manual Counting & Data Consolidation
- Time Consuming & Low Efficiency
- High Risks of Human Errors
- Not Environmental Friendly
- Data Accuracy Doubts and Disputes

Electronic Voting



- Minimized Workforce & Resources
- No Human Manipulations
- Fully Automatic Vote Counts & Statistics
- Fast and Highly Efficient
- Lowest Risks of Human Errors
- Environmental Friendly
- Data Accuracy, Security and Traceability
- Fair, Innovative & Credible
- Data Encryption & Protection
- Satisfied Voters Experience
- Operations and Cost Effective

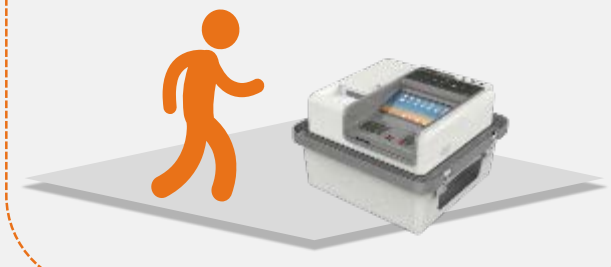
Electronic Voting

Voter Identity Verification & Mark on Pollbook

Step I

EVM login (optional 2nd level Identity Verification inside Polling Unit

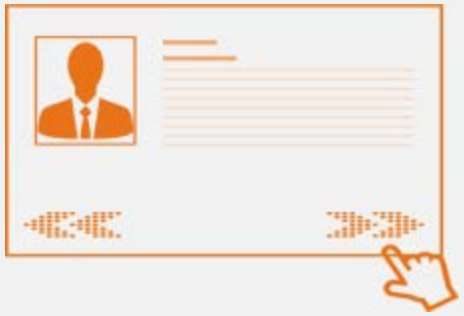
Step II



View Candidates List in EVM

Step III

View Candidate Details in EVM



Electronic Vote Casting

Ballot Paper Printing

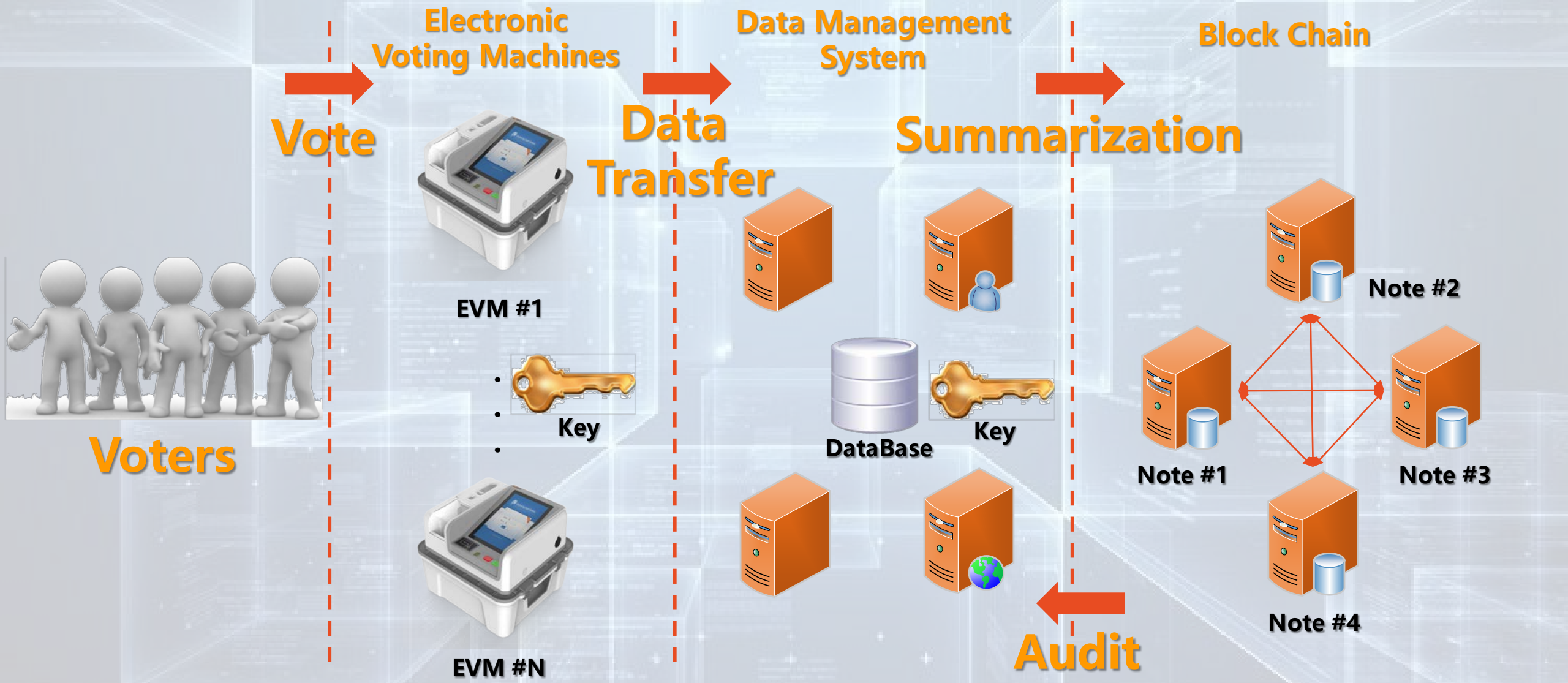
Ballot Confirmation & Casting into Ballot Box

Step IV

Window View
No Touch
No Tamper

Data Encrypted and Managed

Data Management Architecture



Vote Count Optical Scanner

VCOS Machine

Product Description

- Secured Features and Voter Experience are Highly Customized per Electoral Committee Requirements
- Votes are scanned optically thus Vote Data are recorded both electronically and on paper simultaneously
- Paper Ballots can be scanned on precinct-based optical scan system in the polling place (Precinct Count)
- Paper Ballots can also be collected in a ballot box to be scanned at a central location (Central Count)
- Vote Data Matching electronically with Physical Paper Ballots Collected

Electronic Voting Machine

Electronic Voting with Matching & Verifiable Printed Paper Record - Electronic & Paper Combined Voting with User Friendly, Convenient and Secured Voting Procedures

Product Description

- Biometric Duel Access Control
- Touch Screen
- User Friendly and Convenient Interface
- Easy & Clear Candidate Information Display
- Simple Voting Operations
- Automatic Vote Receipt Printing
- Automatic Vote Count Management
- Secured Ballot Paper Storage
- Tamper Proof

Electronic Voting Machine (RFID Ballot)

Excellent Voter Experience

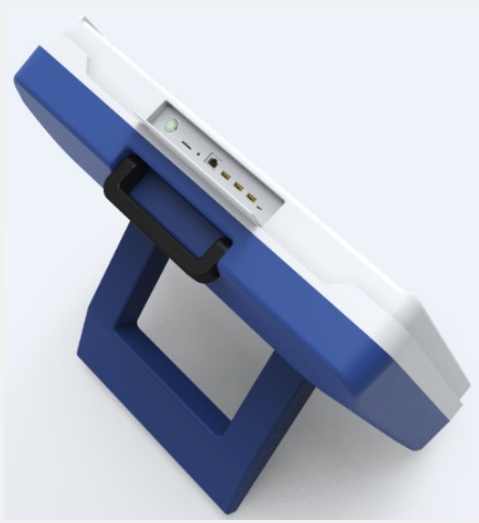
- 21.5” LED-Backlit Display Screen
- Capacitive Touch Screen
- Privacy Protection
- Vocal Assistance

Artisan Industrial Design

- Robust and Tamper Proof Casing
- Light Weight for Mobility and Logistics Convenience
- Adjustable Angles for Voting Convenience

Trusted and Secured Features

- Embedded RFID Reader and Thermal Printer
- Simultaneous RFID Encoding and Ballot Printing
- 3 Way Vote Data Matching and Management Mechanism



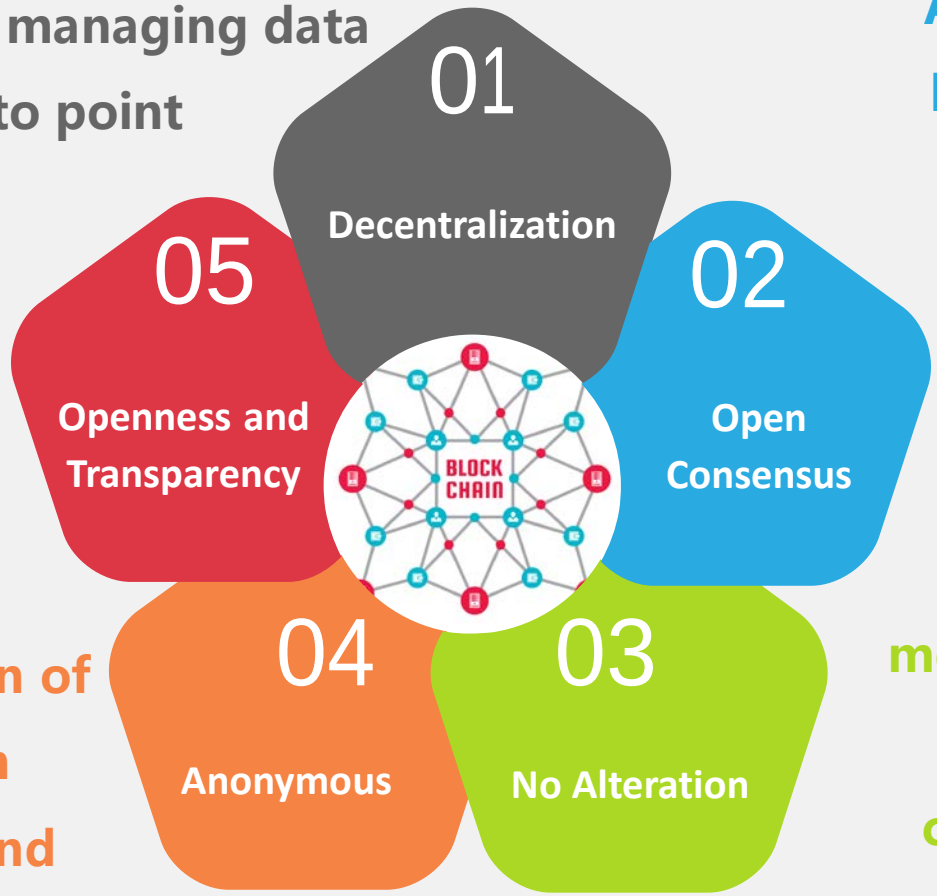
Security Enhancement with Block Chain

Block Chain - A Decentralized & Distributed Database Ledger

Decentralized equipment management, managing data point to point

Anyone can participate in the blockchain network, which is based on consensus mechanism and competitive calculation

The running rules are open and transparent, and all data information is open and anyone can query the transaction

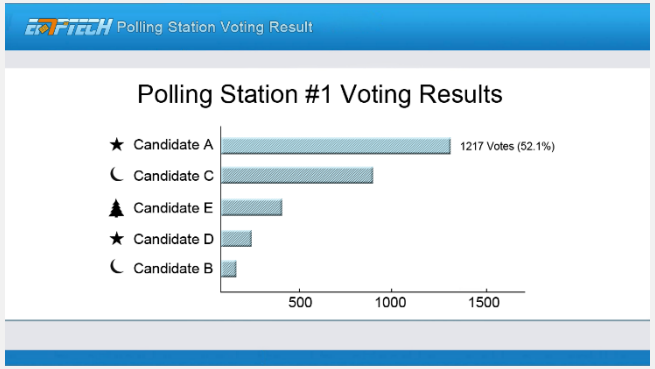


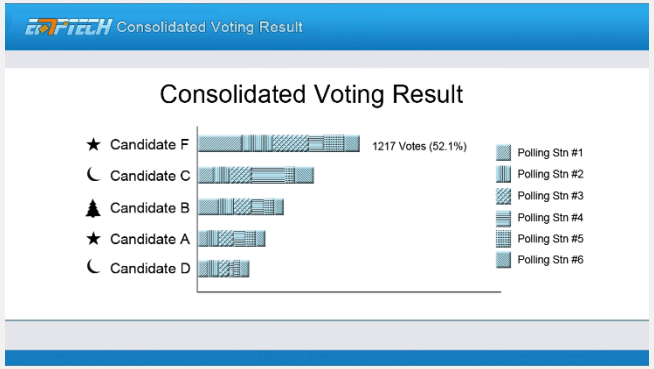
Asymmetric encryption of private information ensures anonymity and transaction security

Based on the cryptography method and the adjacent block series, the loop can't be changed and all information can be traced back

Total End-2-End Solution & Services from A to Z

- Vote Data Encryption and Management (Local Storage & Secured Transmission
- Vote Statistics and Data Consolidation Management





- Remote Voting Management System (VMS)
- Other Value Added Services:
  - Consultancy Services (Standards, Regulations, Procedures, Approvals, Certifications, etc)
  - Polling Center Design, Renovation, Ballot and Accessories Production
  - Administration, Logistics and Training Services

Corporate Digest

Our Corporate Profile

Founded in 1995 → IPO on 28 Sep 2016 in Shenzhen Stock Exchange - Stock Code: 300546

Who is Emperor Technology

- A leading Secure ID Solution & Service Provider
- Hardware / Software Developer & Supplier

Market Progress

- Serving 2 billion people with secure ID solutions
- Serving top 10 smart card manufacturers
- More than 100 smart card fare payment systems

Business Units

- Public Security
- Banking Services
- Public Transportation
- Smart Election

Company Location

Headquarter

Shenzhen Software Industry Base

R&D and Manufacturing

More than **8,000 sqm** manufacturing center in Long Gang District, Shenzhen EmperorTech building under construction **(to be completed in Y2018)**

Global Presence

Our Sales & Local Supports

- Hong Kong (International HQ)
- China (Offices and Branches in 5 Cities)
- America Office (Dallas)
- India Office (Mumbai)
- Africa Office (Abuja)
- CIS Office (Moscow)

World Class Services

- 24/7 Hotline Support
- 12 Hours Onsite Services

Emperor Technology Global Services Map

China ePassport Perso System

Issuing

150,000

ePassports every day

ePassport

China Citizen ePassport

China Diplomatic ePassport

Location

600+ systems servicing all 31 Provinces

3 Overseas Perso Centers

Equipment

China National eID

Issuing **900,000,000**

China National eID Cards

Time

From Y2005

Sample

100+ Systems deployed since 2002

Kazakhstan eID Card Perso System

Kazakhstan eID

Customer
Ministry of Interior of Kazakhstan

Time
Y2014

Sample

Color photo
based on polycarbonate substrate

Equipment

High-speed Issuance

Kazakhstan ePassport Perso System

Kazakhstan ePassport

Customer
Ministry of Interior of Kazakhstan

Time
Y2014

Sample

ePassport

Equipment

High-speed Issuance

Kyrgyzstan eID Card Perso System

Kazakhstan eID

Customer

Ministry of Interior of Kyrgyzstan

Time

Y2016

Sample

Laser Engraving
based on polycarbonate substrate

Equipment

Laser Engraving Perso

Hong Kong ePassport Perso System

10,000,000+ Newly Designed **ePassports** in the next **10** years

To support **300** passports per hour personalization with Laser Engraving, Color Printing, Lamination and OCR Quality Control

Diplomatic Enrollment System

Since Y2013

Covering all **260+** China oversea embassies,

1,200+ oversea Chinese government bureau

eID, ePassport & Travel Permits Kiosks

More than **3000** Enrollment and Dispensing Kiosks are widely deployed over **30+** cities in China and HK

Hong Kong eID Enrollment and Dispensing Kiosk

220+ eID Enrollment and Dispensing Kiosks

Servicing 7 Million+ population in Hong Kong for the New eID Enrollment and Issuance starting Sep 2018

Nigeria Voting & Verification System

Serving

70,000,000+ Voters

180,000 Polling Units

Customer

Nigeria Independent National Electoral Commission (INEC)

Time

From 2014

Equipment

THANKS