

Motorola Biometric Solutions for Embassy Environments

Motorola Identity Management and Security Solutions



Motorola's commitment to seamless mobility results in the freedom to deliver information at the right time to the people who need it most. For embassies, Motorola's commitment produces trusted visa, passport, and applicant biometric-enabled solutions based on innovative technologies guided by proven strategies. Motorola Identity Management and Security Solutions provide officials with the tools to secure borders through accurate identification of individuals, quick processing and matching of biometric information, and secure transmission of this information around the world. With over 30 years of biometric industry leadership, Motorola has the experience to deliver identity management solutions that solve your most mission-critical concerns.

Our solutions are configurable to provide the functionality needed in various embassy environments. Solutions are rugged to function behind bullet proof glass or mobile to function in remote areas. Our deployments are designed to fit within minimal space, enabling easy installation. Furthermore, we develop easy-to-use technologies that not only integrate simply with existing workflows, but also allow for quick operator training to ensure new hires are fully acclimated within a minimal timeframe. Built with commercial-off-the-shelf (COTS) products and designed with service oriented architecture (SOA), our biometric solutions help guard against obsolescence and provide the flexibility to expand and upgrade system components as program demands necessitate.

Motorola Identity Management and Security Solutions Offer You:

- Wireless and mobile solutions that function on global networks capable of addressing transaction requirements, climate concerns, and weight and size limitations; Motorola is seamless mobility
- Intuitive solution designs that easily integrate into existing workflows and effortlessly install into small locations
- Graphical user interface (GUI) designs that are user-friendly, shortening the learning curve
- Innovative multi-modal biometric technologies that produce trusted results and help protect against failures to enroll
- Versatile solutions based on proven strategies that provide accurate biometric identification in different embassy environments around the world
- Secure infrastructures that ensure data integrity and citizen privacy while maintaining the ability to transmit information wherever and whenever it is needed most
- 24/7 customer service guaranteeing system functionality around the clock
- End-to-end biometric-enabled solutions built on COTS hardware and SOA software that are compliant with all US and international standards; solutions capable of delivering fast and accurate 1:1 or 1:many identification to ensure validity of identity claims



Motorola Identity Management and Security Solutions

Motorola provides a complete end-to-end suite of products specifically designed to meet the unique needs of the embassy market – accuracy, mobility, and simplicity. Motorola combines the latest technologies with proven expertise in biometrics, integration, implementation, and customer service to offer solutions that provide trusted identification.

Multi-Biometric Visa/Passport Enrollment Solution – Mobile, Stationary, and Ruggedized solutions efficiently capture demographic and biometric data (fingerprint, 2D & 3D facial images, iris images, signatures). Built-in quality controls ensure accurate, fast, and effective results. Easy-to-use technologies enable fast operator training. COTS strategy provides form factor flexibility and guarantees solutions that meet physical space and power requirements. Furthermore, COTS strategy based on SOA architecture permits swift integration into existing workflows and future upgrades to expand system capacity. Motorola’s enrollment solution is compliant with all appropriate US and international standards.

Multi-Biometric Visa/Passport Verification Solution – Accurate and reliable solutions verify the identity of individuals and the authenticity of documents through biometric matching and document analysis. Motorola’s solutions support verification of International Civil Aviation Organization (ICAO) and International Organization for Standardization (ISO) compliant passports and secure documents (including visas, passports, RFID, smartcards, and national ID cards). The design of our solutions allows for easy operator training, and simple integration into existing workflows.

Multi-Biometric Applicant Solution – Powerful biometric acquisition tools capture fingerprints, facial images, iris images, and signatures. Motorola’s applicant processing solution also facilitates the authentication of credentials (e.g. identity cards, drivers’ licenses, barcode, smart card, and e-passports) and issuance of employee identity cards and credentials.

Multi-Biometric Mobile and Wireless Identification – Mobile devices capture both fingerprints and facial images with uncompromising speed and accuracy. Mobile and handheld configurations provide flexibility to optimize solutions to meet mobile and wireless requirements. Our mobile biometrics devices provide true seamless mobility for secure mission critical applications.

Multi-Biometric Server Subsystem – Advanced algorithms serve as the foundation for full biometric integration with the inclusion of fingerprints, palmprints, facial images, descriptive data, iris images, signatures, and documents to deliver a comprehensive solution for the accurate identification and verification needed for visa, passport, and embassy employee applicant processing.

Multi-Biometric Capture And Verification Peripherals

- Passport reader – support for optical (MRZ data, 2D Barcode, UV and IR security feature) and electronic (smart chip) information; readers perform document authentication on ICAO and non-ICAO compliant credentials
- Smartcard readers
- Fingerprint scanners and readers
- Integrated 2D and 3D camera for facial recognition
- Iris camera
- Signature capture pad

Document Central Registry – Records relevant to the lifetime of the document such as issuance, expiration, renewal, and invalidation.

Data Preparation and Key Management – Data encryption and submission of information for Public Key Infrastructure (PKI) processing.

Personalization Server – Identification document production and personalization (passports, smart cards, national ID, etc.).

The Motorola Advantage



Motorola Mobile AFIS

Trusted: With deployments in nearly 40 countries and in over 300 agencies, we are leaders in the intricacies of the design, interoperability, and deployment of biometric systems in the many stressful circumstances of the real world. Furthermore, with over 76 years in wireless communications, Motorola has the experience to deliver true seamless mobility around the world.

Secure: Motorola's biometric solutions are based on innovative technologies that facilitate secure transfer of data between embassies, agencies, and networks. As borders expand, the need for wireless communications increases, and in turn, affects the need for more secure connectivity. Motorola Identity Management and Security Solutions provide reliable and secure solutions for local, regional, and national deployments that ensure data integrity on hardwire and wireless networks across the globe.

Leadership: Motorola was the first deployed minutiae-based Automated Fingerprint Identification System (AFIS). Motorola was the first to implement real-time AFIS and the first to introduce multi-modal biometric fusion. This latest innovation is the Motorola Fused-Scoring Logic, which provides enhanced accuracy from multi-modal biometrics capture (finger, 2D and 3D facial images).

Commitment: With 24-hour, 7 day a week, and 365 day a year customer support, we operate to ensure your mission critical needs are met. Motorola Biometrics is not only dedicated to the success of each project, but also to the complete fulfillment of your expectations.

Reliability: Motorola has the experience necessary to design and implement reliable identity management systems for passports, visas, or other Foreign Service applications that may be needed to keep our world safe. Here are a few examples of Motorola biometric applications already in use:

- **TSC Registered Traveler Program:** Motorola's multi-modal biometric technology encodes, stores, and performs matching services for expedited customs screenings for all US participating airports.
- **Norway Ministry of Foreign Affairs:** A full multi-modal biometric enrollment system networked around the world. Capturing fingerprints, facial image and signature at 1,000 and 500 ppi, the advanced system encodes information onto chips embedded in passports.
- **Serbian Ministry of Interior:** A 10-million-record national ID, passport and driver's license system issuing International Civil Aviation Organization (ICAO)-compliant identifications using the latest smartcard and multi-biometrics fusion technology (fingerprint and facial). This system has 300 remote workstations and more than 1,000 handheld mobile units.
- **Switzerland National Police:** A national AFIS with fingerprint-enabled border checks. The system also supports the country with refugee management.
- **Belgium Refugee Bureau:** A national AFIS system for immigration, refugee verification and civilian background checks.
- **Guatemala:** A passport issuing system with 1.3 million documents issued with remote embassy locations worldwide.
- **California Welfare:** A 7-million-record statewide AFIS system with more than 350 remote workstations performing 3,000 verification and duplication checks daily.

Interoperability: Border agents need to share information across regions, agencies, and networks to prevent illegal entry, and to ensure the public's safety. Motorola Biometrics plays a leading role in defining international standards, with participation in the International Standards Organization (ISO), International Committee for Information Technology Standards (INCITS), American National Standards Institute and National Institute of Standards and Technology (ANSI/NIST) governing bodies. Industry standards are critical to the seamless exchange of information across varying networks, whether they are Motorola supplied or not.



Motorola Enrollment Solution Portable



Motorola Enrollment Solution Desktop

Motorola Biometric Solution for Embassy Environments

Multi-Biometric Enrollment Solution Highlights:

- Captures maximum image size allowable by ANSI/NIST, the FBI and Interpol
- FBI Appendix F certified
- Fully compliant to ANSI/NIST, XML and other international interfaces and industry standards
- Provides high quality fingerprints (rolls and flats) and palmprints
- Easy-to-use workflows designed for quick operator training
- Always visible operator instructions with instant graphical feedback and quality assurance checks to ensure data entry accuracy
- Intuitive graphical user interface with the roll-to-slap and upper, lower and writer's palm comparison results clearly displayed with live video of the images
- Sequence checking and auto placement of fingerprints
- Photo capture and Auto Face Finder system to automatically generate NIST and ISO compliant photographs
- Multi-language support
- Scanner with auto-calibration and no moving parts

Multi-Biometric Applicant Solution Highlights:

- Captures maximum image size allowable by ANSI/NIST, the FBI and Interpol
- Fully compliant to ANSI/NIST, XML and other international interfaces and industry standards
- Provides high quality rolls, flats and palmprints
- Highly configurable software with customizable descriptor fields designed for easy data entry
- Natural workflows designed to capture fingerprints, palmprints and facial images
- Always visible operator instructions with instant graphical feedback
- Quality assurance checks to ensure data entry accuracy

Multi-Biometric Matchers Subsystem Highlights:

- 1,000 ppi and 500 ppi capabilities
- Matches fingerprints (rolls and flats), palmprints, 2D facial and 3D facial images
- Enhanced security features to ensure database integrity
- Servers are based on Linux or HP-UX, and workstations are based on Windows operating systems
- Utilizes commercial-off-the-shelf hardware and service oriented architecture
- Fully integrates fingerprints, palmprints, descriptive data, facial images, iris images, and signatures
- Follows all US and international industry standards

Multi-Biometric Verification Solution Highlights:

- FBI Appendix F certified
- Fully compliant to ANSI/NIST, XML and other international standards
- Intuitive graphical user interface with the roll-to-slap and upper, lower and writer's palm comparison results clearly displayed with live video of the images
- Multi-language support
- Enhanced for touch screen operation (optional)
- Scanner with auto-calibration and no moving parts
- Ergonomically designed with foot pedal to provide precise control over scanner

Multi-Biometric Mobile and Wireless Identification Highlights:

- Operating System: Microsoft Windows® CE or Window® Mobile PC
- Memory: RAM 128MB/Flash ROM 64MB (expandable)
- Display: 240x320 transfective color touchscreen with Stylus
- On screen Qwerty keypad
- 1.3 megapixel digital camera with on-board lighting facilitates the capture of high definition images
- Photo capture at (640 x 480 input)
- Finger sensor: 500 DPI 8-bit grayscale optical or solid-state
- Barcodes, RFID and smart card capable
- Communication via
 - 802.11b wireless LAN
 - GPRS/CDMA
 - Bluetooth
- Designed to operate for a full eight-hour shift

Motorola Biometrics Highlights:

- COTS solutions built with SOA software to deliver reliable visa, passport, and applicant processing solutions to embassies around the world
- Trusted solutions with systems in 300 agencies, in nearly 40 countries
- Innovative solutions and a history of bringing advanced technologies to market
- Leadership in the biometrics industry with participation in all international standards governing bodies
- 24/7 customer service centers ready to ensure your mission critical operations are available when you need them most

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