

Turnkey multi-  
biometric solution  
for national-scale  
identification projects

# MegaMatcher Automated Biometric Identification System



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MegaMatcher Automated Biometric Identification System is a complete system for the deployment of large-scale multi-biometric projects. The **modular** and **customizable** solution provides services for high-performance, scalable systems with multiple parallel transactions.

The solution is intended for national-scale projects, like biometric **voter registration** with records deduplication, **passport issuing**, **border control**, as well as other civil or criminal AFIS/ABIS.

Available as **on-premise solution** and as **cloud service**.

- Technology proven in national-scale projects, like passport issuance and voter deduplication.
- Fingerprint, face, iris and palmprint modalities supported.
- Enrollment of biometric and biographic data with quality assessment.
- Identity records lifecycle management with adjudication.
- Galleries support for providing different agencies with specific access.
- Fast matching in verification, identification and deduplication modes.
- Top accuracy proven at NIST MINEX III, PFT III and other evaluations.
- Forensic analysis module for law enforcement applications available
- Scalable, modular architecture with high availability and fault tolerance.
- Customization possible for project needs.

30-day cloud service trial:  
<https://www.megamatcher.online/>





## References

MegaMatcher Automated Biometric Identification System is based on MegaMatcher Accelerator and MegaMatcher SDK technologies, which have been used in a number of national-scale biometric identification projects:

- **DR Congo Voter Registration Project** uses MegaMatcher ABIS solution. 11 MegaMatcher Accelerator Extreme units have been deployed to provide enough performance for all-with-all comparison to perform massive voter registration in order to prepare for DRC 2018 elections. The solution **deduplicated 46.5 million voter records in less than 2 months**. 5.3 million duplicate records and 900 thousand underage records were found. You can download the **case study**:  
[https://download.neurotechnology.com/CaseStudy\\_DRC\\_Voter\\_Registration\\_Project.pdf](https://download.neurotechnology.com/CaseStudy_DRC_Voter_Registration_Project.pdf)
- **Venezuela Voter Registration System** is based on MegaMatcher Accelerator solution and proved its speed and accuracy with biometric data from nearly **18 million** registered people during the 2012 Venezuelan presidential election. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_Venezuela\\_Voter\\_Registration\\_System.pdf](https://neurotechnology.com/download/CaseStudy_Venezuela_Voter_Registration_System.pdf)
- **Bangladesh Voter Registration Project** is based on MegaMatcher multi-biometric technology with more than **80 million citizens** registered and deduplicated using biometric face and fingerprint technology. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_Bangladesh\\_Voter\\_Registration\\_Duplicate\\_Search\\_System.pdf](https://neurotechnology.com/download/CaseStudy_Bangladesh_Voter_Registration_Duplicate_Search_System.pdf)
- **Ukraine's National Biometric Verification and Identification System** is based on MegaMatcher Accelerator solution and MegaMatcher technology with **12 million** people already enrolled into the system, which is designed to enroll up to 30,000 people per day and serve identification requests in under 4 seconds. For more information see: <https://neurotechnology.com/cgi-bin/customers.cgi?ref=sp&oid=1&aid=150>
- **Mexico Multi-Biometric Enrollment System** is using MegaMatcher Accelerator solution and MegaMatcher technology to enroll 5 million taxpayers by 2014. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_Mexico\\_Tax\\_Agency\\_Multibiometric\\_Enrollment\\_System.pdf](https://neurotechnology.com/download/CaseStudy_Mexico_Tax_Agency_Multibiometric_Enrollment_System.pdf)
- **Sierra Leone Biometric Voter Registration System** is based on MegaMatcher Accelerator solution. You can download the **case study**:  
[https://download.neurotechnology.com/CaseStudy\\_Sierra\\_Leone\\_Biometric\\_Voter\\_Registration\\_System.pdf](https://download.neurotechnology.com/CaseStudy_Sierra_Leone_Biometric_Voter_Registration_System.pdf)
- **Somaliland National ID Project** uses three biometric modalities and is based on MegaMatcher Accelerator solution and MegaMatcher technology. You can download the **case study**:  
[https://download.neurotechnology.com/CaseStudy\\_Somaliland\\_National\\_ID\\_Project.pdf](https://download.neurotechnology.com/CaseStudy_Somaliland_National_ID_Project.pdf)
- **Indian States Criminal AFIS** is based on MegaMatcher technology. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_India\\_Forensic\\_AFIS.pdf](https://neurotechnology.com/download/CaseStudy_India_Forensic_AFIS.pdf)
- **Sri Lanka Foreign Employment Passport Tracking & AFIS System** is based on MegaMatcher technology. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_Sri\\_Lanka\\_Foreign\\_Employment\\_Registration.pdf](https://neurotechnology.com/download/CaseStudy_Sri_Lanka_Foreign_Employment_Registration.pdf)
- **Indonesia Biometric Passport System** is based on MegaMatcher multi-biometric technology. You can download the **case study**:  
[https://www.neurotechnology.com/download/CaseStudy\\_Indonesia\\_Biometric\\_Passport\\_System.pdf](https://www.neurotechnology.com/download/CaseStudy_Indonesia_Biometric_Passport_System.pdf)

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References continued from the previous page

- **Bosnia and Herzegovina Biometric Passport and ID System** is based on MegaMatcher technology. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_BiH\\_Biometric\\_Passport\\_System.pdf](https://neurotechnology.com/download/CaseStudy_BiH_Biometric_Passport_System.pdf)
- **El Salvador's National Passport System** is based on MegaMatcher multi-biometric technology. You can download the **case study**:  
[https://neurotechnology.com/download/CaseStudy\\_El\\_Salvador\\_Nationwide\\_Multibiometric\\_Passport\\_Immigration\\_System.pdf](https://neurotechnology.com/download/CaseStudy_El_Salvador_Nationwide_Multibiometric_Passport_Immigration_System.pdf)
- **Border control systems in Spanish airports** use MegaMatcher for multi-biometric face and fingerprint identification. You can download the **case study**:  
[https://www.neurotechnology.com/download/CaseStudy\\_Spain\\_Airports\\_Border\\_Control\\_System.pdf](https://www.neurotechnology.com/download/CaseStudy_Spain_Airports_Border_Control_System.pdf)
- **Angola's Electoral Enrollment** uses MegaMatcher technology for identification and de-duplication.
- **Immigration departments in 6 Caribbean countries** use MegaMatcher-based solution for border control, national security and passport issuance.
- **Colombia's law enforcement and defense sector** organizations use MegaMatcher-based solutions for eID issuing.
- **Mexico's Yukatan State Police** uses MegaMatcher-based latent fingerprint and criminal case management system.
- **Government of Gujarat (MA Yojana), Tata Steel and L&T Hazira in India** use MegaMatcher-based solutions for attendance recording and contract labour identity management.
- **India's IndusInd Bank, Vodafone and PS IPL** use MegaMatcher-based solutions for employee time and attendance control.
- **Electronic Medical Records access control** in more than **8,500 healthcare facilities** in 31 country of the world, including **Portugal, Spain, the United States, the Netherlands, Italy, Malaysia and Brazil** use MegaMatcher technology



## Features and Capabilities

MegaMatcher Automated Biometric Identification System (ABIS) is available as on-premise solution and as cloud service:

- MegaMatcher ABIS 12.1 **on-premise solution** is designed as a complete system with all necessary components for deploying a large-scale biometric system. The solution includes **ready-to-use** services and applications for running on **regular hardware**.
- MegaMatcher ABIS 12.1 **cloud service** is designed to make the system more accessible from multiple platforms and locations. The **secure** integrated cloud service provides functionality for enhancing its use as a solution for large and national-scale projects.

MegaMatcher ABIS 12.1 on-premise solution provides these **capabilities** for large-scale biometric identification systems:

- **Biometric and biographic data enrollment.** Person's biometric is captured in real time from stationary or mobile enrollment stations using the supported fingerprint/palmprint readers (150+ models supported) or iris cameras. Off-the-shelf cameras are used for **ICAO compliant** facial image capture. **Quality assessment** can be used for evaluation of the biometric data quality based on standard and proprietary algorithms. **Document scanning** is also available.
- **Identity records management.** The whole lifecycle of identity records is managed, including registration, update and delete procedures. Complex and questionable biometric operations are resolved using the **adjudication** procedure, which can use automatic rulesets or forward the cases to human operators, who will review them using a specialized visual tool.
- **Galleries support.** Identities can be optionally organized into separate and isolated galleries for grouping them by certain attributes (i.e. geographic region) and providing access to each of them for specific users. This way a single system can be used by multiple agencies for their specific needs.
- **Fast matching.** The biometric matching can be performed in verification (1-to-1), identification (1-to-all) and deduplication modes (all-to-all). The fast and accurate matching is assured by proprietary algorithms which are able to perform up to **1.2 billion comparisons** per second on each node of the system. The matching process can be tuned to detect anomalies. Multiple gallery support is optionally available for performing matching on isolated subsets of the biometric database.
- **Accuracy.** MegaMatcher ABIS is based on award-winning biometric technologies. In 2019 NIST has judged that Neurotechnology's fingerprint algorithms are **the most accurate high speed** fingerprint recognition systems among all **MINEX III** participants. In the same year MegaMatcher palm print recognition algorithm has been recognized as the most accurate overall and fastest among the most accurate contenders at the FVC-onGoing evaluation. In 2020 and 2021 Neurotechnology's fingerprint algorithm earned **first place** at the FVC-onGoing and PFT III evaluations correspondingly. Also, in 2020 the iris recognition algorithm has been proven by NIST as the second most accurate at the IREX 10 evaluation.
- **Forensic analysis module.** The module is designed for use in law enforcement applications and provides specific functionality including latent fingerprints processing.
- **Customization for project needs.** Most components of MegaMatcher ABIS can be customized for specific project needs and restrictions. The customization may range from user interface translation into required language to modifying the system architecture.



## Technology Awards

MegaMatcher Automated Biometric Identification System is based on awards-winning fingerprint and iris recognition technologies.

### MINEX evaluations by NIST

- **MINEX III** evaluation was successfully passed in 2015. In 2019 Neurotechnology's fingerprint template generator algorithm has been ranked the **first in the NIST MINEX interoperability category**; the fingerprint matching algorithm has also been ranked as the **front-runner in terms of interoperability** and, when combined, the two have become the **supreme accuracy, high speed fingerprint recognition system**.
- **MINEX Ongoing** evaluation was successfully passed in 2014. The **second place in the Ongoing MINEX ranking** for fingerprint matching algorithms was achieved. MegaMatcher technology was **recognized by the NIST as fully MINEX compliant**.

### FVC-onGoing results

- In 2020 MegaMatcher fingerprint recognition algorithm has shown the **top result** at the FVC-onGoing evaluation. The fingerprint extractor and matcher were ranked as the **most accurate** for both FV-STD-1.0 and FV-HARD-1.0 benchmarks
- In 2019 MegaMatcher **palm print** matching algorithm has shown the **top result** at the FVC-onGoing evaluation. The algorithm was the most accurate overall and fastest among the five most accurate matchers

### PFT II and PFT III (Proprietary Fingerprint Template) Evaluations by NIST

- Different versions of Neurotechnology's fingerprint recognition algorithm were submitted to the NIST Proprietary Fingerprint Template Evaluation. The algorithm's template matching accuracy was among the best participants at the previous PFT II evaluation. Our latest submissions to the PFT II and the ongoing **PFT III** are in average the **most accurate** algorithms in all the experiments.

### FpVTE (Fingerprint Vendor Technology Evaluations) by NIST

- **FpVTE 2012** – in 2015 NIST recognized Neurotechnology's fingerprint identification algorithm as **one of the fastest** and **most accurate** among the evaluation's participants.
- **FpVTE 2003** – one of the best reliability results in the Middle Scale Test were shown.

### IREX Evaluations by NIST

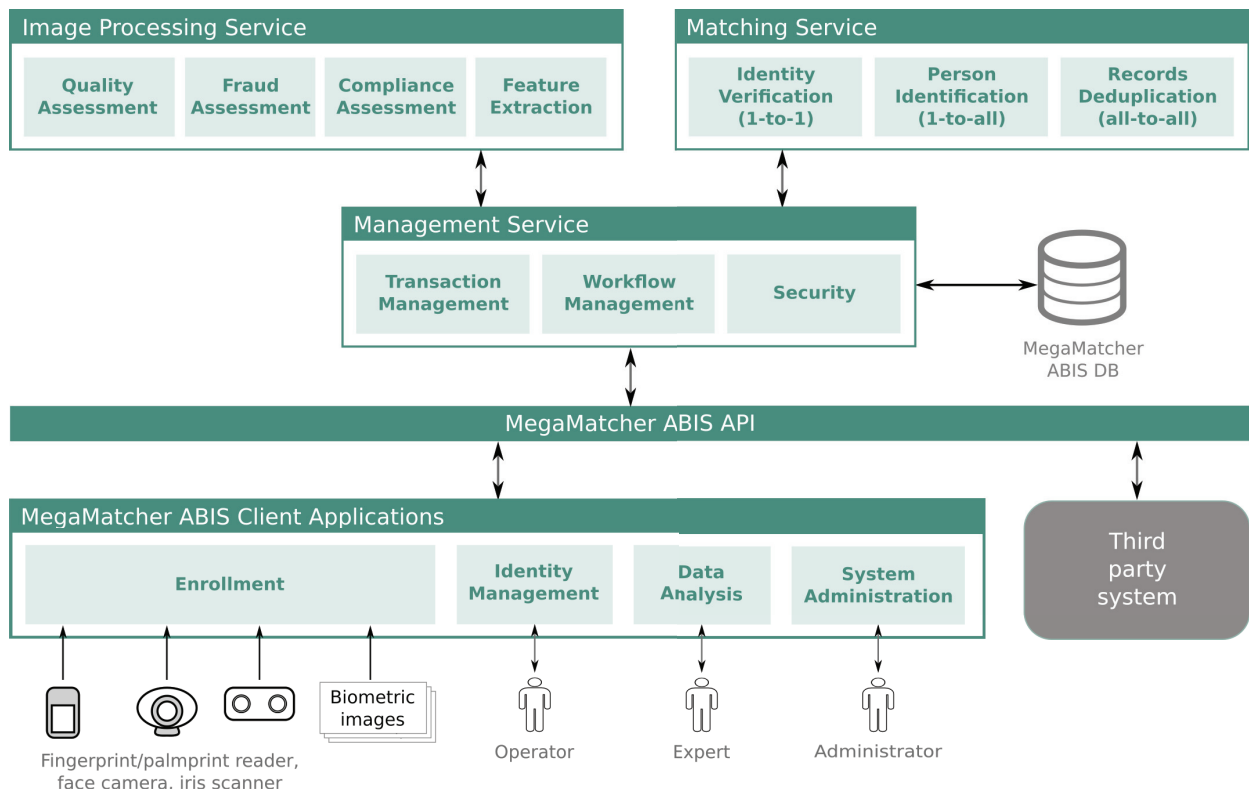
- **IREX 10** – in 2020 Neurotechnology's iris recognition algorithm has been judged by NIST as the **second most accurate** among the IREX 10 participants. The submitted algorithm featured **much faster template creation** and **search time**, and **much smaller template** size than the only more accurate contender.
- **IREX III, IREX IV and IREX IX** - in 2012, 2013, and 2018 correspondingly Neurotechnology's iris recognition algorithm has earned top positions in these evaluations.



## On-premise System Architecture and Components

Large-scale biometric projects may have specific system requirements. MegaMatcher Automated Biometric Identification System (ABIS) features **modular architecture**, which allows to **adapt** to different functional and performance requirements.

MegaMatcher ABIS 12.1 is available as on-premise solution, which is described on this page, and as cloud service.



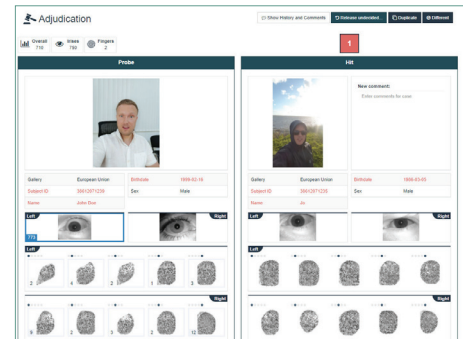
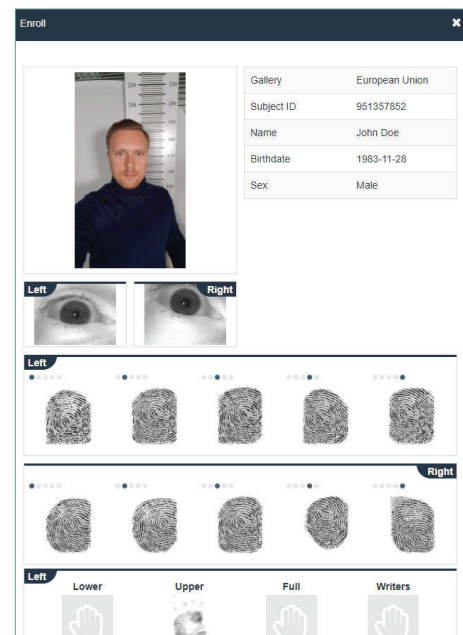
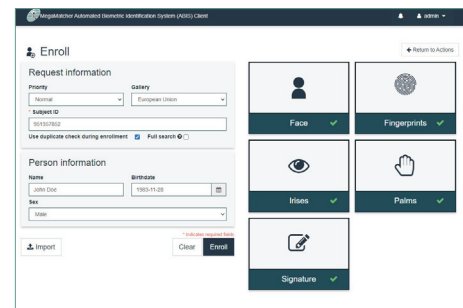
The services, modules and components of MegaMatcher ABIS 12.1 on-premise solution are described on the next pages.



## MegaMatcher ABIS Client Applications

MegaMatcher ABIS Client Application are modular web-based applications designed to operate with the MegaMatcher ABIS solution. They provide the following functionalities:

- Enrollment** – Biographic and biometric data registration toolset with enhanced data quality and integrity control. The toolset offers:
  - Multi-biometrics support* – fingerprint, palmprint, face and iris biometric modalities are supported.
  - Live biometric capture* – a wide range of biometric devices is supported. Person's biometric is captured in real time from stationary or mobile enrollment stations.
  - Quality assessment* – evaluation of biometric data quality based on standard and proprietary algorithms
  - ICAO compliant facial image capturing* – checks image pixelation, washed out colors, background uniformity, face darkness, skin tone, skin reflections, glasses reflections, red eyes and looking away eyes. The red eyes can be corrected automatically.
  - Document scanning* – data from passports and other personal ID documents can be imported using specialized scanners and automatically recognized.
- Identity Management** – the solution provides all necessary tools for maintaining identity registry, managing relationships between identities and processing exceptions:
  - Identity lifecycle management* – includes registration, update and delete procedures.
  - Configurable workflow* – possibility to define project specific matching and adjudication rules.
  - Customizable personal record* – may include a user defined set of biographic attributes, documents and biometric modalities.
  - Adjudication* – decision making on complex biometric operations, which can be based on automatic rulesets or forwarding the cases to human operators, who will review them using a specialized visual tool.
  - Galleries* – grouping identities by certain attributes (i.e. geographic region, data owner), organizing them into separate and isolated watchlists and providing restricted access to each of them for specific users. This way multiple agencies can use the same system for their specific needs.

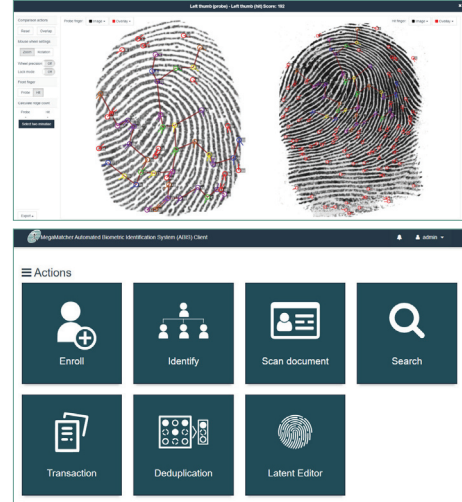


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- **Data Analysis** – includes a dedicated forensic analysis module for law enforcement applications, with fingerprint capturing and latent editor available out of the box. The latent editor is a visual tool which provides the ability to analyze the fingerprint image, perform automatic and manual enhancements as well as fingerprint feature points management. It is designed for the cases, when automated image processing is unable to extract all minutiae or extracts a lot of false minutiae from a latent fingerprint image (for example, taken from the crime scene). Therefore, an expert should manually edit a fingerprint template in order to submit it to the system for the identification.
- **System administration** – designed to manage and monitor MegaMatcher ABIS system using role-based access control and consists of the following parts:
  - **System Management** – provides ability to manage MegaMatcher ABIS system's state.
  - **System Monitoring** – dedicated for visual MegaMatcher ABIS real-time execution monitoring.
  - **User Management** – dedicated to create and revoke users as well as provide or restrict access permissions to particular MegaMatcher ABIS modules.
  - **System Configuration** – provides ability to define criteria for search engine (such as matching thresholds for identification and verification).
  - **Report Generation** – statistical reports with filtering possibility are provided for full MegaMatcher ABIS actions inspection.



MegaMatcher ABIS Client Application works on Microsoft Windows, Linux, Android and iOS.

## MegaMatcher ABIS API

MegaMatcher ABIS API is a web services-based interface (RESTful) designed for easy and quick integration with third-party systems. It provides all necessary functionalities including identity management, adjudication and system administration. **Integrators** can **develop** client-side applications using the MegaMatcher ABIS API to meet specific requirements

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## Management Service

MegaMatcher ABIS is designed to maintain system's integrity ensuring that individual operations are executed consistently. The Management Service is the core component of MegaMatcher ABIS responsible for orchestrating the work of all system services and managing the workflow of operations.

- **Transaction management** – each operation forms a transaction which is passed through several stages:
  - *Validation* – ensures the sufficiency of provided biometric and demographic data.
  - *Data preparation* – conducts biometric data quality analysis, adjustments and biometric template extraction.
  - *Matching* – conducts biometric comparison using predefined parameters.
  - *Adjudication* – manual inspection of matching results.
- **Workflow management** – the ability to adjust operation workflow to meet particular business needs.
- **Security** – role-based access control ensures that user without privileges will not be able to execute a particular operation.

## Image Processing Service

The Image Processing Service is based on MegaMatcher 12.1 biometric template extraction technology. This component is used for biometric data quality assessment and biometric data extraction from fingerprint, palmprint, face and iris images.

These functions are performed by the Image Processing Service:

- *Quality assessment* – images with fingerprints, palmprints, faces and irises are processed by proprietary and standard algorithms to determine their quality and suitability for biometric operations.
- *Fraud assessment* – detection of non-human/synthetic biometric, e.g. finger liveness and presence of eye contact lens.
- *Compliance assessment* – determination of fingerprint misplacement, facial occlusions, ICAO compliance etc.
- *Feature extraction* – creation of proprietary biometric templates from the given fingerprint, palmprint, face and iris images.
- *Facial attributes detection* – automatic age estimation and gender classification can be performed for a given facial image.

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## Matching Service

The Matching Service is a high-performance biometric engine which performs the following operations:

- **Identity verification** – matching a biometric template against a selected database record (1-to-1).
- **Person identification** – matching a biometric template against the whole database (1-to-all).
- **Records deduplication** – matching all biometric templates in the database against each other (all-to-all). The questionable matching results are resolved via the adjudication procedure, either automatically or by human operators.

The service must be added to MegaMatcher Accelerator 12.1 and it allows the engine to execute ABIS specific functionalities.

The Matching Service is a **scalable** unit controlled by the Management Service. Multiple units can be arranged into a **cluster** to meet performance and capacity requirements for a specific project. Each particular Matching Service unit requires to be connected to the corresponding MegaMatcher Accelerator unit.

## Customization

Taking into account different business needs and specific project requirements, some customization might be required. This may include developing custom user interface, workflow scenarios, person's record structure (biometric and demographic data, additional data fields).

Neurotechnology offers **custom project development** service for providing a customized MegaMatcher ABIS based solution, as well as implementing additional functionality.



## Cloud Service

MegaMatcher Automated Biometric Identification System (ABIS) cloud service is designed to make the system more accessible from multiple platforms and locations. The **30-day trial** and **subscription** for the service are available at [www.MegaMatcher.online](http://www.MegaMatcher.online).

The cloud service is based on the same MegaMatcher ABIS technology, which is used for on-premise systems. There is no need to purchase any hardware, as all resource-demanding tasks are performed on the cloud. In addition to the general advantages of using cloud architecture, the service features:

- **Flexible resources** – enough **data storage** space and **processing power** can be offered based on the current project requirements. The **subscription-based** licensing allows to choose the required system performance for reaching project goals, while paying a **reasonable price** for the services. Such flexibility is especially useful for short-time tasks like **database deduplication**, as well as **scalable** systems.
- **Easy integration** – web service-based **RESTful API** is designed for easy and quick integration with third-party systems. Additionally, **Java** and **.NET** SDK libraries are provided.
- **Security** – the cloud service uses role-based **access control** with industry-standard authentication mechanisms. System activities are assessable for audit.

<https://www.megamatcher.online/>





## System requirements

MegaMatcher ABIS software is distributed as a set of **Docker containers**.

- Any modern **Linux** distribution can be used as a base operating system, including Debian, Ubuntu or CentOS.
- The distribution package includes **scripts for automatic installation** of all necessary components.
- Each software component can run in a physical or virtual environment.

Below are minimal requirements for each component:

- **Matching Service** – depending on the edition, each node should be installed on hardware with the following specifications:
  - **Extreme Edition:**
    - **24 processor cores**, running at **2.6 GHz** or higher frequency.
      - Two Intel Xeon Gold 6126 processors can be used as an example.
    - RAM, depending on the number of the biometric engines:
      - **512 GB RAM** – for **single** biometric engine or **two** biometric engines;
      - **1024 GB RAM** – for **three** biometric engines.
    - Persistent storage - **SSD** is recommended for increasing overall system performance.
    - High speed network connection.
  - **Extremed Edition:**
    - **24 processor cores**, running at **2.6 GHz** or higher frequency.
      - Two Intel Xeon Gold 6126 processors can be used as an example.
    - RAM, depending on the number of the biometric engines:
      - **128 GB RAM** – for **single** biometric engine;
      - **256 GB RAM** – for **two** biometric engines;
      - **384 GB RAM** – for **three** biometric engines;
      - **512 GB RAM** – for **four** biometric engines.
    - Persistent storage - **SSD** is recommended for increasing overall system performance.
    - High speed network connection.
  - **Standard Edition** or **Development Edition:**
    - **4 processor cores**, running at **3.5 GHz** or higher frequency.
    - **16 GB of RAM.**
    - Persistent storage - **SSD** is recommended for increasing overall system performance.
    - High speed network connection.

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- **Image Processing Service** – each node should satisfy the following specifications
  - **24 processor cores**, running at **2.6 GHz** or higher frequency.
    - Two Intel Xeon Gold 6126 processors can be used as an example.
  - At least 32 GB of RAM.
  
- **Management Service** and **Administration Service** – each node should satisfy the following specifications:
  - 12 processor cores.
  - At least 32 GB of RAM.
  
- **MegaMatcher ABIS Client Application** can be run on the following platforms:
  - PC or tablet, running Microsoft Windows OS or Linux
  - Mac, running macOS
  - Smartphone or tablet running Android 5.0 or later
  - iPhone or iPad running iOS



## Related Products

These products are related to MegaMatcher ABIS:

- **MegaMatcher Accelerator 12.1** – a software/hardware solution for building the server-side of a large-scale AFIS or multi-biometric system; available in these versions:
  - **Standard version** – a single MegaMatcher Accelerator Standard unit matches 35 million fingerprints per second or 35 million faces per second or 70 million irises per second;
  - **Extended version** – a single MegaMatcher Accelerator Extended unit matches 100 million fingerprints per second or 100 million faces per second or 200 million irises per second;
  - **Extreme version** – a single MegaMatcher Accelerator Extreme unit matches 1.2 billion fingerprints per second or 1.2 billion faces per second or 700 million irises per second.

MegaMatcher Accelerator performance can be **scaled up** by connecting multiple units into a **cluster**.

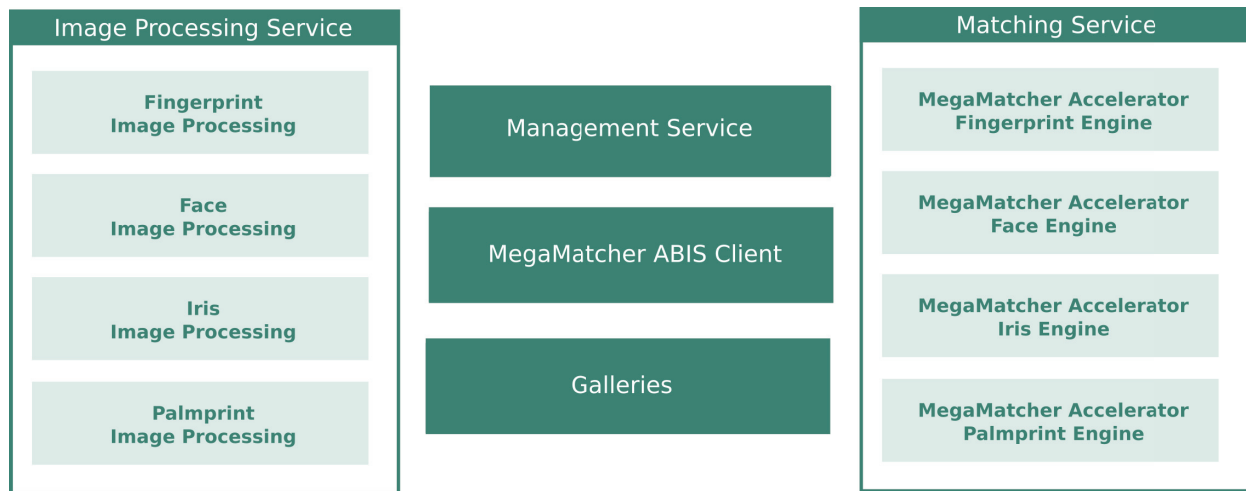
The **Matching Service** in the MegaMatcher ABIS 12.1 is based on MegaMatcher Accelerator 12.1 technology.

- **MegaMatcher SDK** – for development of AFIS or multi-biometric fingerprint, iris, face, voice and palm print identification products. Includes biometric components for template extraction and matching on client-side and server-side of a client-server system. The Image Processing Service, Adjudication Application and MegaMatcher ABIS Client application are based on MegaMatcher 12.1 SDK technology.
- **MegaMatcher On Card SDK** – a product for fingerprint, iris and face matching on smart cards.



## Licensing Model

MegaMatcher Automated Biometric Identification System (MegaMatcher ABIS 12.1) includes a number of components, each particular component is designed for a specific functionality. A **license** for an individual MegaMatcher ABIS 12.1 component is required for **each computer or device** that **run** that component. An integrator should obtain the MegaMatcher ABIS 12.1 Starting Kit and an appropriate quantity of components installation licenses for development and deployment.



MegaMatcher ABIS 12.1 components chart.

MegaMatcher ABIS 12.1 **Starting Kit** includes the following components:

- All components from the MegaMatcher 12.1 Extended SDK (*see the corresponding brochure*), including these important for MegaMatcher ABIS:
  - MegaMatcher Accelerator 12.1 Development Edition (fingerprint engine) – 1 single computer license;
  - MegaMatcher Accelerator 12.1 Development Edition (face engine) – 1 single computer license;
  - MegaMatcher Accelerator 12.1 Development Edition (iris engine) – 1 single computer license;
  - MegaMatcher Accelerator 12.1 Development Edition (palmprint engine) – 1 single computer license;
  - Fingerprint Image Processing – 1 single computer license;
  - Face Image Processing – 1 single computer license;
  - Iris Image Processing – 1 single computer license;
  - Palmprint Image Processing – 1 single computer license;
- Management Service – 1 single computer license.
- Image Processing Service – 1 single computer license.
  - This component also needs any combination of Fingerprint Image Processing, Face Image Processing, Iris Image Processing and Palmprint Image Processing components, which are included with the Starting Kit.
- Matching Service Development Edition – 1 single computer license.
  - This component also needs MegaMatcher Accelerator 12.1 Development Edition licenses, which are included with the Starting Kit.
- MegaMatcher ABIS Client Application – 10 single computer licenses.

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These components are **optionally** available with the MegaMatcher ABIS 12.1 Starting Kit:

- Matching Service Standard Edition with any combination of:
  - MegaMatcher Accelerator 12.1 Standard (fingerprint engine);
  - MegaMatcher Accelerator 12.1 Standard (face engine);
  - MegaMatcher Accelerator 12.1 Standard (iris engine);
  - MegaMatcher Accelerator 12.1 Standard (palmprint engine).
- Matching Service Extended Edition with any combination of:
  - MegaMatcher Accelerator 12.1 Extended (fingerprint engine);
  - MegaMatcher Accelerator 12.1 Extended (face engine);
  - MegaMatcher Accelerator 12.1 Extended (iris engine);
  - MegaMatcher Accelerator 12.1 Extended (palmprint engine).
- Matching Service Extreme Edition with any combination of:
  - MegaMatcher Accelerator 12.1 Extreme (fingerprint engine);
  - MegaMatcher Accelerator 12.1 Extreme (face engine);
  - MegaMatcher Accelerator 12.1 Extreme (iris engine).
- MegaMatcher ABIS Galleries Support (Development Edition) – up to 3 galleries are supported in the whole system.
- MegaMatcher ABIS Galleries Support (Standard Edition) – up to 10 galleries are supported in the whole system.
- MegaMatcher ABIS Galleries Support (Extended Edition) – up to 25 galleries are supported in the whole system.
- MegaMatcher ABIS Galleries Support (Extreme Edition) – unlimited number galleries supported in the whole system.

The required **additional** components installation licenses and/or customization for specific project needs can be ordered at **any time**. The prices for the components of MegaMatcher ABIS 12.1 are available on the next page.

**Note:** the **amount** of MegaMatcher Accelerator and MegaMatcher ABIS Galleries Support component licenses and their **edition** should be the **same** as the amount of Matching Service licenses and their edition in the system.

Please **contact us** for more information about licensing MegaMatcher ABIS 12.1.



## Pricing

- The prices are **effective March 23, 2021**. The prices may change in the future, so please **download and review the latest version** of the brochure before making an order.
- Quantity discounts do not accumulate over time.
- Prices do not include local import duties or taxes.

MegaMatcher ABIS	
MegaMatcher ABIS 12.1 Starting Kit	€ 14,990.00

MegaMatcher ABIS 12.1 Client Application (prices per license)	
Quantity	Price
1 - 9	€ 190.00
10 - 19	€ 138.00
20 - 49	€ 124.00
50 and more	Please contact us for more information

MegaMatcher ABIS 12.1 Management Service (prices per license)	
Quantity	Price
1	€ 7,000.00
2	€ 6,510.00
3	€ 6,140.00
4	€ 5,880.00
5	€ 5,670.00
6 and more	Please contact us for more information

MegaMatcher ABIS 12.1 Image Processing Service (prices per node installation license)	
Quantity	Price
1 - 9	€ 2,000.00
10 - 19	€ 1,450.00
20 and more	Please contact us for more information

Server-side template extraction components (prices per license)				
Quantity	Fingerprint Image Processing	Face Image Processing	Iris Image Processing	Palmprint Image Processing
1 - 9	€ 2,000.00	€ 2,000.00	€ 2,000.00	€ 2,000.00
10 - 19	€ 1,450.00	€ 1,450.00	€ 1,450.00	€ 1,450.00
20 and more	Please contact us for more information			

MegaMatcher ABIS 12.1 Matching Service (prices per node installation license)				
Quantity	Development Edition	Standard Edition	Extended Edition	Extreme Edition
1	€ 3,000.00	€ 20,000.00	€ 51,000.00	€ 51,000.00
2	€ 2,790.00	€ 18,600.00	€ 47,600.00	€ 47,600.00
3	€ 2,630.00	€ 17,500.00	€ 44,700.00	€ 44,700.00
4	€ 2,520.00	€ 16,800.00	€ 42,700.00	€ 42,700.00
5	€ 2,430.00	€ 16,200.00	€ 41,300.00	€ 41,300.00
6 and more	Please contact us for more information			

Continued on the next page

# MegaMatcher Automated Biometric Identification System



MegaMatcher ABIS Galleries Support Component (prices per node installation license)	
Development Edition [3 galleries]	€ 1,500.00
Standard Edition [10 galleries]	€ 10,000.00
Extended Edition [25 galleries]	€ 25,500.00
Extreme Edition [unlimited galleries]	€ 51,000.00

MegaMatcher Accelerator 12.1 fingerprint engine installations				
Quantity	Development Edition	Standard	Extended	Extreme
1	€ 3,000.00	€ 20,000.00	€ 51,000.00	€ 195,000.00
2	€ 2,790.00	€ 18,600.00	€ 47,600.00	€ 182,000.00
3	€ 2,630.00	€ 17,500.00	€ 44,700.00	€ 170,800.00
4	€ 2,520.00	€ 16,800.00	€ 42,700.00	€ 163,300.00
5	€ 2,430.00	€ 16,200.00	€ 41,300.00	€ 157,700.00
6 and more	Please contact us for more information			

MegaMatcher Accelerator 12.1 face engine installations				
Quantity	Development Edition	Standard	Extended	Extreme
1	€ 3,000.00	€ 10,000.00	€ 20,000.00	€ 76,000.00
2	€ 2,790.00	€ 9,300.00	€ 18,600.00	€ 70,900.00
3	€ 2,630.00	€ 8,800.00	€ 17,500.00	€ 66,600.00
4	€ 2,520.00	€ 8,400.00	€ 16,800.00	€ 63,700.00
5	€ 2,430.00	€ 8,100.00	€ 16,200.00	€ 61,500.00
6 and more	Please contact us for more information			

MegaMatcher Accelerator 12.1 iris engine installations				
Quantity	Development Edition	Standard	Extended	Extreme
1	€ 3,000.00	€ 20,000.00	€ 51,000.00	€ 195,000.00
2	€ 2,790.00	€ 18,600.00	€ 47,600.00	€ 182,000.00
3	€ 2,630.00	€ 17,500.00	€ 44,700.00	€ 170,800.00
4	€ 2,520.00	€ 16,800.00	€ 42,700.00	€ 163,300.00
5	€ 2,430.00	€ 16,200.00	€ 41,300.00	€ 157,700.00
6 and more	Please contact us for more information			

MegaMatcher Accelerator 12.1 palmprint engine installations			
Quantity	Development Edition	Standard	Extended
1	€ 4,500.00	€ 30,000.00	€ 76,500.00
2	€ 4,200.00	€ 27,900.00	€ 71,400.00
3	€ 3,950.00	€ 26,300.00	€ 67,100.00
4	€ 3,780.00	€ 25,200.00	€ 64,100.00
5	€ 3,650.00	€ 24,300.00	€ 62,000.00
6 and more	Please contact us for more information		

Additional services for MegaMatcher ABIS customers	
Custom development	Contact us
Support and maintenance for custom solutions	Contact us
Training service	Contact us