



CASE STUDY

Junta Central Electoral Dominican Republic

Dominican Republic National Registry

THE CUSTOMER

The National Government of the Dominican Republic - a country situated on the eastern two-thirds of the island of Hispaniola in the Caribbean, a neighbor to Haiti, with over 8 million adults, both citizens and non-citizens.

THE CHALLENGE

The Dominican Republic's biometric national registry project which has been in place for several years faced intersecting challenges. One, in 2013, the government established a goal to register every adult into their electoral system by 2016. Two, a sudden influx of immigrants had already created a backlog of millions of unprocessed registrations. The DR's existing system was not fast enough or powerful enough to handle the volume and speed the new registration and de-duplication process would require.

THE SOLUTION

Fulcrum Biometrics worked with the Junta Central Electoral (JCE) and an in-country partner to quickly upgrade the DR's Automated Fingerprint Identification System (AFIS) using Neurotechnology's MegaMatcher Accelerator hardware/software solution. The result was a massive gain in efficiency, processing biometric identifications an database de-duplication 4 times faster with hundreds fewer servers. Far exceeding expectations, the Fulcrum solution achieved speeds of 18,000 de-duplicated enrollments per hour, each with 10 fingerprints and a facial image. The JCE was able to eliminate the backlog and is on track to complete registration of all adult citizens prior to the 2016 elections.

WHY FULCRUM

As an independent distributor and consultancy, Fulcrum is able to use its expertise and relationships to quickly assemble the perfect combination of strategic partners and world-class technologies to create solutions for organizations and projects of any size, including national-scale programs.

Fulcrum Biometrics worked closely with the Junta Central Electoral (JCE), the central electoral board of the Dominican Republic—the government agency in charge of directing, organizing, and supervising the elections—to select and deploy a MegaMatcher Accelerator automated fingerprint identification system (AFIS). The MegaMatcher Accelerator system is being used to process biometric fingerprint and facial identification data collected from more than eight million adults to ensure that the country's national registry database is up-to-date, accurate and contains no duplicate records.

The Dominican Republic, a country situated on the eastern two-thirds of the island of Hispaniola in the Caribbean, set out to create a national biometric registry of all adults over the age of 18 living in the country - both citizens and resident aliens, most of whom come from neighboring Haiti.



Junta Central Electoral
Garantía de Identidad y Democracia



Fulcrum Biometrics is the #1 global distributor of biometric hardware and software, with over 10 years of experience and customers in more than 90 countries

The biometric national registry project, which originally began in 2006, had been proceeding at a slow and steady pace. The sudden influx of new residents crossing over government's immigration and naturalization policies resulted in a backlog of unprocessed registrations. The country recently embarked on a new process to provide a path to citizenship for more than a million Haitians now living in the country, many without legal status, who needed to be added to the registry and provided with national ID cards.

In 2013, the JCE set a goal for all citizens over 18 to register their biometrics prior to the 2016 elections to ensure all registration records are verified using biometric identification. This was to be a large undertaking, as all adults residing in the country (more than eight million people, both citizens and non-citizens) would be required to register in the new system before the deadline, and those who had been previously enrolled in the national registry would need to re-enroll in order to obtain new ID cards. With this large scope and short timeline, it soon became clear that their existing biometric identification system, while still very accurate, was not powerful enough to handle the volume and speed the new registration and de-duplication process would require.

The MegaMatcher Accelerator AFIS provides high-speed, high accuracy and high-volume biometric identification required for national-scale projects

The existing biometric national registry system was based on MegaMatcher AFIS technology from Neurotechnology, and it ran on hundreds of servers. By upgrading to the MegaMatcher Accelerator hardware/software AFIS solution, Fulcrum was able to help the JCE scale down to only 13 production servers while providing 4 times faster processing of the biometric identification and database de-duplication.

Fulcrum's staff recognized the JCE's limited timeframe and budgetary requirements, so rather than importing the complete hardware/software system, they worked with an in-country

vendor to obtain and install the 26 HP proliant servers required for the new MegaMatcher Accelerator system. Fulcrum then worked with the biometric technology vendor, Neurotechnology, throughout the implementation process to ensure that the software was installed and optimized for the maximum performance level guaranteed by the vendor.

The new MegaMatcher system from Fulcrum exceeded expectations, achieving speeds of 18,000 de-duplicated enrollments per hour, each with 10 fingerprints and facial image

The new AFIS has significantly reduced the time required to register people in the database and ensure valid identification with no duplicates. Enrollment fingerprint and face image data is being collected at national registry enrollment centers all over the country. Prior to the new system, JCE staff often worked until midnight or later to try to catch up with the huge backlog of registrations that required vetting and de-duplication so applicants could be enrolled in the national registry and given their ID cards.

Now with the new high-speed system, JCE staff is able to process new biometric registrations as fast as new data comes in from the field enrollment centers. At the rate of approximately 18,000 de-duplicated and verified enrollments per hour, the JCE was able to eliminate the backlog and is on track to complete registration of all adult citizens prior to the 2016 elections.



ABOUT JUNTA CENTRAL ELECTORAL

The Dominican Republic's Junta Central Electoral is a government entity in charge of keeping elections democratic and impartial in addition to civil registry and status of the Dominican Republic citizens. Created in 1923 to finalize the first U.S. intervention, its functions include organizing presidential and congressional elections. It is also in charge of registering, keeping, and administrating a citizen's data from birth.



ABOUT FULCRUM BIOMETRICS

Founded in 2002, Fulcrum Biometrics is a leading provider, distributor, and integrator of biometric identification technologies and devices to commercial, civil, and military customers in more than 100 countries. Offerings include industry-leading biometric software development tools and fingerprint and other biometric sensors. Fulcrum is the globally trusted source for custom software development for multiple platforms, custom integration, implementation of identity management applications, and biometric access control systems. Fulcrum is the developer of the Fulcrum Biometric Framework (FbF®), a rapid biometric application deployment suite which includes the FbF® bioServer, FbF® Live Scan, FbF® mobileOne, FbF® Demographica, FbF® bioClient, FbF® bioControls Client Library, and FbF® mobileOne iOS Library.



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