The World Bank predicts there will be 11.2 billion people on the planet by 2100. Growth at this rate, combined with the social and economic challenges brought about by increased global travel, migration and security threats highlights the need for every person to have a legal, secure and accessible identity.

We all know that an identity is one of the most important rights in the modern world. It is a validation of who we are, ensures our entitlements and allows us the freedom to travel.

An identity secures our legal right to access services such as healthcare, education and social welfare. It is the fundamental proof we need in order to be recognised as a citizen, to be entitled to a national ID card and be able to apply for a valid passport.

The data captured as part of a Civil Registration and Vital Statistics (CRVS) programme sits at the very core of a true and stable identity and can deliver the trusted foundations necessary for all our secure identification needs thereafter.

An identity which can be duplicated or hacked is no identity at all. In many countries, these basic foundations are simply not in place and without the proper, secure and effective fundamentals of vital event registration and certificates in place, the other aspects of identity management can be called into question.
Delivering a solid CRVS platform therefore is arguably one of the single most important services a government can provide for its citizens today.

But a CRVS registry is not just about the individual, it benefits the collective whole. A country’s population is better served in terms of planning and provision of services if an individual’s rights are recorded, registered, validated and recognised. The allocation of resources and the provision of services will only be successful if a population’s make up is understood.

In essence, access, entitlement, planning and the allocation of resources are all based on identity data and the creation of a trusted digital identity that has been both validated and verified as true.

This is why we believe that getting the right authentic data – reliable, unique to each individual (captured at the earliest opportunity) to ensure integrity – is the key to delivering a flexible and secure citizen identity management solution. After all, it is upon this data that we build our foundations.
In addition to providing the solid foundations for an individual’s entitlement and the government’s resource planning, a CRVS system can also be the central reference point from which other government users, systems and schemes can be driven, either as a data source or for verification purposes.

A person’s authentic civil registration data can be used as source information where proof of identity is required. Tailored permissions and access rights can be given to authorised users, each having customised data views giving access only to relevant detail, benefitting departments and ministries responsible for delivering services such as elections and voting, passports, driving permits, social welfare, education, health and policing.

The statistics held within a CRVS scheme can also be made easily accessible to other government systems and research bodies to assist in planning and managing beyond the initial civil registration requirements.
Our Solution

DLR Identify™ for CRVS provides the foundations for identity management. A secure browser-based identity software solution, it enables governments to record, register and report on citizen identity and associated vital events. DLR Identify™ for CRVS provides a digital infrastructure that gives the government and its stakeholders the confidence that the identities it manages are legal, secure and true.
**Our Approach**

DLR Identify™ for CRVS is designed to securely manage the vital event registration needs via the four functional pillars of the notification, recording, registering and reporting of citizen identity data.

This new solution, built upon the existing DLR Identify™ platform, enables governments to cost effectively record the occurrences and characteristics of citizen vital events such as births, deaths and marriages, derive statistics from that data and use this to help inform planning, decision-making and delivery of critical services.

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### CRVS system overview: How does it work?

<table>
<thead>
<tr>
<th>Function</th>
<th>Mobile Application</th>
<th>DLR Identify for CRVS System</th>
</tr>
</thead>
<tbody>
<tr>
<td>Notify</td>
<td></td>
<td></td>
</tr>
<tr>
<td>What</td>
<td>Informing authorities of the occurrence of a vital event (limited vital event and individual details information)</td>
<td>Provision of detailed vital event and individual information (including substantiating evidence if required)</td>
</tr>
<tr>
<td>Who</td>
<td>Health official, Certifier of cause of death, Government-appointed notifier, Courts, Judicial institutions, Informant</td>
<td>Informant, Individual/individuals representative, Government official</td>
</tr>
<tr>
<td>How</td>
<td>Mobile application, SMS notification, Email notification</td>
<td>Web-based application, SMS notification, Email notification</td>
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</tbody>
</table>

**Report**
- Legal registration: issuance of a certification of registration
- Vital statistics: generation of aggregate pointers on key health and development indicators

**Register**
- Government official (national statistics)
- Accessible by other government officials & external researchers

**Record**
- Web-based application, SMS notification, Email notification

**Notify**
- Web-based statistical report generation
  - Email output
  - Dashboard
Comprised of seven key modules, De La Rue has specifically developed DLR Identify™ for CRVS as a tailored solution focussed on delivering four key priorities;

### Seven key modules:
- ID Enrol
- ID Verify (Optional module for CRVS)
- ID Perso
- ID Issue
- ID Register
- ID Report
- ID Control

#### 1. Recording vital events
Every year, millions of births and deaths go unregistered, the causes primarily being lack of infrastructure (in the right place) and process. Enabling data acquisition through web and mobile based technologies helps bring the infrastructure to the citizens. This data is critical in the development and delivery of citizen-centric services and government planning.

Using web-based interfaces and mobile registration capability, DLR Identify™ CRVS makes the capture of critical data simpler and enablers information to be processed in real-time.

#### 2. Individual traceability
The process of registration is the first step in the identification of an individual’s identity.

Once registered, family and regional links can be verified and the individual is provided with the legal right to access critical services. Visibility of citizen data also provides the government with the tools needed to police fraud.

DLR Identify™ for CRVS enables family links to be established and maintained across generations via the creation of a unique ID, with supporting certificates that enhance traceability.

#### 3. Planning for today and the future
A well-designed and maintained CRVS system provides both the current picture and a future view of the population.

Citizen registration and vital statistics data provides critical insight and the essential data that a government needs to inform:
- Commercial, social and economic planning
- Population forecasting
- Planning for education, healthcare, policing and more

DLR Identify™ for CRVS provides an instant view of vital statistics with data analysis on demand. Statistical reporting is bespoke and can be designed to support your planning needs.

#### 4. Single data source
Achieving a single, integrated database for all citizen data as the “one true source delivering one trusted identity”, minimizes the risk of duplication, enabling data to be easily, quickly and accurately analysed.

The specific verified source of data, based on a solid CRVS platform, can be used by and benefit multiple users and stakeholders across the key government departments and ministries given access to this data for both source information and verification purposes.

DLR Identify™ CRVS provides a secure centralised database that can be accessed from web and mobile interfaces, allowing multiple authorised users and stakeholders appropriate access to the same data and source information.
Example solution

CRVS Functions

NOTIFY
- Notification of vital event occurrence
- Mobile app / pc
- Stakeholder system input
- Informant declaration

RECORD
- Record generation biographic & optional biometric
- Linkages kept between data records

REGISTER
- Legal registration by registrar
- Certificate authorized for production
- Certificate printed
- Optional manual quality inspection
- Certificate issuance by registrar

REPORT
- Vital statistics dashboard
- Reporting function analysing CRVS database
- Vital statistics dashboard
- Audit reporting
- Management tools
- Controls business operations

DLR Identify™ for CRVS Modules

ID ENROL
ID VERIFY
ID PERSO
ID ISSUE
ID REPORT
ID CONTROL
ID REGISTER
<table>
<thead>
<tr>
<th>Solution Benefits</th>
<th>Quick Reference Guide</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>One true source</strong></td>
<td></td>
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<tr>
<td>Citizen data can be used for multiple government purposes</td>
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<tr>
<td><strong>Flexible solution</strong></td>
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<tr>
<td>Scalable system design</td>
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<td>Optional biometric data capture</td>
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<tr>
<td><strong>Universal</strong></td>
<td></td>
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<tr>
<td>Web, mobile and SMS record generation</td>
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<tr>
<td><strong>Continuous</strong></td>
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<tr>
<td>Occurrence and characteristic linkages covering a lifetime of vital events</td>
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<tr>
<td><strong>Confidential &amp; Secure</strong></td>
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<tr>
<td>Data encryption and access control</td>
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<tr>
<td><strong>Proven security</strong></td>
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<tr>
<td>Positive independent assessment of security strategy and design concepts (NCC, March 2016)</td>
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<tr>
<td><strong>Compilation &amp; Generation</strong></td>
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<tr>
<td>National and regional vital statistics</td>
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<tr>
<td><strong>Compliant</strong></td>
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<tr>
<td>Adheres to the guidelines and recommendations of the UN &amp; APAI-CRVS</td>
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<tr>
<td><strong>Customisable</strong></td>
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<tr>
<td>Web applications and workflow</td>
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<tr>
<td><strong>User friendly</strong></td>
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<tr>
<td>Intuitive, efficient and easy-to-use GUI</td>
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<td><strong>Instant access</strong></td>
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<td>System portal provides access to all web based modules</td>
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<td><strong>Easy integration</strong></td>
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<td>With existing government legacy systems</td>
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<td><strong>Full traceability</strong></td>
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<tr>
<td>Comprehensive auditing and integrated reporting</td>
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</table>
The secure management of citizens’ identities requires a series of highly complex work streams. De La Rue has simplified these into a complete identity management solution, providing the functionality needed to underpin all eGovernment and eCitizen applications, as well as border and document control solutions.

DLR Identify™ is a web-based software solution for the secure management, personalisation and storage of citizen identity data.

**DLR Identify™**

**Platform**

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De La Rue has simplified these into a complete identity management solution, providing the functionality needed to underpin all eGovernment and eCitizen applications, as well as border and document control solutions.

DLR Identify™ is a web-based software solution for the secure management, personalisation and storage of citizen identity data.

**ID Register**
Person-centric database, which functions as a central reference point for storage and management of citizen identity data.

**ID Enrol**
Application module which captures, records and stores citizens’ biographic and optional biometric enrolment data.

**ID Issue**
Facilitates the secure certificate / document handover and issue of the certificate / document to the citizen.

**ID Report**
Dedicated vital statistics and bespoke customer reporting module unique to DLR Identify™ for CRVS solution.

**ID Verify**
Optional module within the CRVS package ID Verify can support identity authentication via 1-to-1 and 1-to-many matching.

**ID Perso**
Production management of the certificate personalisation and quality assurance processes.

**ID Control**
Dashboard audit reporting system which monitors, maintains and controls business operations.

**DLR Identify™ for CRVS**

DLR Identify™ for CRVS is built on the DLR Identify™ platform.
De La Rue is a leading provider of sophisticated products and services that keep nations, their economies and their populations secure. At the forefront of identity management and security, De La Rue is a trusted partner of governments, central banks and commercial organisations around the globe.

De La Rue is listed on the London Stock Exchange (LON: DLAR).