Governments have a fundamental need to identify people, and complementary to this, citizens have a need to identify themselves to other people, companies, organizations and agencies.

The concept of identity is inextricably linked to the requirement to prove an entitlement. That may be an entitlement to live in a country, to drive, to access welfare benefits, or to travel to other countries, gain healthcare and many, many others too numerous to mention here.

One of the most well known forms of “official identification” is the humble passport. A document required by, but paradoxically enough, not mandatory for travel to and from a country and another.

The national identity document also evolved from the necessity to identify nationals usually during times of conflict situations where persons may attempt to pass themselves off as nationals.

These days as governments seek to provide ever more efficient services, ensuring that services are only dispensed to those entitled to receive them is an essential of good housekeeping and sound economics.

In addition, after the events of September 11th 2001 in the United States, and the international attention on terrorism and international crime, as well as the requirements of UN security resolution 1373, all nations are intensifying their security and attention is increasingly being paid to that of civil identity.

ID as an access token

What this means is that a national identity is becoming the token to access e-government services and to enable governance: from health information to police administration, from judicial systems to social security support, from government-to-

A brief history of passports

One of the earliest mentions of passports dates back to about 450 BC. Nehemiah, an official serving King Artaxerxes of ancient Persia, asked permission to travel to Judah.

The King agreed and gave Nehemiah a letter “to the governors of the province beyond the river”, requesting safe passage as he traveled through their lands.

Today many passports still carry such a letter of request for safe passage and protection for the bearer.

From its beginnings as a letter of safe conduct, the simple passport has become the single most important international identity document that a traveler can carry.
Enabling e-democracy

An associated and complementary application is the Election Process Management System. Its main functionality is:

- Voter register management
- Parties and candidates management
- Vote results management

Citizen centric approach

The paradigm for governments to provide universal access to e-governmental services is best described by the transition from a government-centric approach to a citizen-centric approach, and to organize services for the citizen based on life events rather than ministerial organization.

In addition the requirement is to provide services 24x7x365, rather than the traditional 9-5 approach. This can only be achieved by leveraging technology, and leveraging multi channel access via a universal access approach (in this case the identity document!) so as not to disenfranchise those without PCs.

Solution overview

The central component of any identity and passport system is the national civil register. The civil register is the repository that contains all the information about the citizens. Typical details held may be:

- Personal data such as: name, address, date of birth, nationality, place of birth, Identity number
- Graphical data such as: picture, signature
- Biometric data such as: fingerprint, iris scan, hand geometry

Upon this base of information are built the services that are provided to the citizens. HP’s National Registry Solution is a modular system which can include all types of citizen documentation, such as:

- Civil registry
- Issue of Passports
- Issue of ID card
- Foreigners registry
- Birth registry
- Marriage registry
- Death registry
- Address management

Benefits

- For the citizens
  - Increase security of identity, and protection of identity theft
  - Increased confidence when traveling internationally
  - Access to e-governmental services
  - Access to a more open and fair democratic system.
  - A system of government that is centered around them, rather than the government itself
- For the government
  - Complete details of the entire population
  - Access to accurate population statistics for planning and service provision
  - Increased road and arms safety through accurate licensing
  - Prevention of identity fraud, and benefit fraud
  - Increased security to counter crime and international crime
  - Combat terrorism
  - Satisfy requirements of UN security resolution 1373
  - Increased standing in the international community
• Arms registry
• Border control
• Visa issuance

The modularity of the HP National Registry System ensures that the government builds on a solid platform with the required components only and integrates into existing sub-systems for example border control or visa issuance.

Key functionalities
• The HP National Registry System addresses the special needs of national registration systems. These systems are characterized by high security requirements, high volume of data and transactions, high level of service and ease of operation.
• The HP National Registry System’s personal data registration supports the handling of database searches by internal and external users. HP’s National Registry System provides published interfaces that enable external authorized computer systems to retrieve subset views of the data.
• Can be used as a data source for a variety of national systems such as National Security, Driver License Bureau, Border Control, National Health Services, and other license issuance systems.
• HP’s National Registry System strongly supports many different types of national document and production process and issuing.
• International standards, like the European Union Travel Document Initiative, and the ICAO (International Civil Aviation Organization) specification are supported.
• The need for increasing the security level of identification documents, is answered both by improving the registration processes and auditing methods and by integrating special security features in the document/card level.
• As expected from a national registry system, the HP National Registry System fully supports a time-based history of registration.
• The HP National Registry System is a fully auditing system that records all registration transactions, logging the data changes and a wide range of tracing information.
• The system is proven, reliable and easy to use, based around the concept of individual folders.

Bridge the digital divide
By building multi-channel access based around the government identity card, it fully supports and provides the ideal mechanism for bridging the digital divide, and ensures than citizens are not left by the wayside as governmental services delivery develops into a citizen-centric approach.
Architecture overview

Hp’s National Registry System supports the three typical methods for implementing such systems architecture.

Centralized: A centralized system architecture setup is based around a central civil registry repository, with all the regions and the regional enrolment centres feeding directly into the central system through the network. Personalisation, which is the process of the document production, is completed in a central place, and documents are dispatched either to the regional centres or directly to the citizens for issuance.

Decentralised: A decentralised system architecture setup is based around a complete process being carried out in the regions, including all enrolment, capture, data storage and card issuance. A typical setup may be for a federation of states, with each state operating as an island.

Hybrid: A hybrid system is similar in nature to the decentralised system with all processes occurring in the regions, including enrolment and personalisation and issuance, but with the addition of the regions feeding a central repository.

eGovernment applications

The services to complement the national identity, and accessed by interfacing the identity document through a network of access points could include the following:

- **e-citizen**: demographic services, fill-in forms, status of birth, change personal data: place of residence, marriage, etc.
- **e-health**: schedule exams, admission to hospitals, read examination results, choose doctors, home health service request, welfare service request
- **e-culture**: library services (reserve books), book theatres, museums, concerts, sport events
- **e-education**: enroll to and pay school services (children transport, restaurant), pay school tax, nursery school, ask for grants
- **e-democracy**: e-voting (identification at poll stations), law proclamation
- **e-tax**: pay income tax, house tax, trash tax, car tax, request tax refund
- **e-home**: pay national insurance for servants, request funds for renovation, request social funds for rent, geo info services
- **e-police**: check and payment of fines, consult penalty dossier status
- **e-car**: get driving license, change car property, obtain permission to drive in protected areas
- **e-work**: apply for job, request unemployment benefit, enroll to training, request national insurance for home working
- **e-pension**: consult all pension status

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