The Global National eID Industry Report

Market Analysis and Forecasts 2010 to 2015

Comprehensive Market Data. Critical Insight. Targeted Revenue Forecasts.

Available June 2011



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Report Overview

- Scope: This report presents unique insight into the worldwide opportunity for the development and deployment of electronic national identification documents (National eID) and the systems that support them. The current state of the market is evaluated in terms of how this market will likely evolve and where the most lucrative opportunities will be. This comprehensive report offers unbiased critical perspective and previously unpublished data and statistics on National eID marketplace.
- OBJECTIVE: Provide the basis for short-term, mid-range, and long-term strategic planning for technology and solution development, market investment, and phased adoption of National eID's.
- AUDIENCE: Individuals responsible for strategic planning, business and market development, and sales related to National eID initiatives including vendors, integrators, investors, consultants, solution providers, and public sector staff responsible for evaluating, developing and implementing National eID programs.
- METHODOLOGY: Analysis is drawn from significant market and technical developments, tests, pilots and deployments, public domain and private data sources, research and reports, surveys, and interviews with vendors, integrators, intermediaries, customers, privacy and civil liberties advocates, and other relevant technology and leading industry experts. Forecasts are derived from modeling market opportunities based on public domain and proprietary primary data and secondary data sources and are flexibly structured to account for known and predictive factors. Primary data determines known model data. These include data points like population, annual national ID's issued, and program costs. Models are adjusted to account for market conditions, current deployments, anticipated projects, and existing and planned infrastructure. Conservative assumptions for predictive factors such as technology pricing and anticipated adoption rates are introduced to determine forecasts.
- KEY CONCLUSION: Factors ranging from reusable ePassport infrastructures to intensified engagement of international financial institutions contribute to a surge in National eID programs in the 2010-15 time frame. By 2015 the number of countries issuing National eID's, the number of documents issued annually, as well as the number of National eID's in circulation will have eclipsed those numbers for traditional National ID's. However, in the absence of mandates no universal model will have emerged and the landscape will resemble a mix of experiments intended to maximize the perceived benefits of multi-application, transactional National eID systems. Successful National eID programs will be judged by the degree to which the population will use public and private eID-enabled programs and services.
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Preface

April 2011

National eID's are the next generation of identity documents for a country's citizens and residents, elevating their use from simple identification credentials to multi-application transactional systems underpinning eGovernment and eventually commercial services. The market for National ID's (traditional and eID) is as large as there are countries in the world, but ill-understood and almost as diffuse in format and application as the number of countries issuing these documents.

The cost of a National eID system extends far beyond the production of the credential itself, and can be upwards of \$1 billion. Costs are primarily driven by a) the degree of technical complexity of the National eID, and b) countries' ability and readiness to provide a trustworthy infrastructure commensurate with the type of National eID chosen. The latter more and more involves back-end processes such as massive databases, high-end authentication mechanisms, and local- and federated identity management. Associated costs include systems integration, reengineering, and restructuring. Countries take various roads – some prefer readying their infrastructure prior to launching a National eID, others let a launched National eID dictate the order and degree of required infrastructure developments. In practice, each country attempts to strike a balance between the two depending on existing infrastructure, financial resources, and political realities.

In the period covered by this report (2010-2015) an unprecedented number of countries will launch National eID's, despite absence of legislative mandates or international standards. Some reasons underlying this surge include reuse of the infrastructure created by ePassport programs, increased maturity and reduced costs of technologies required for National eID programs, and stepped-up structural funding by the international financial aid community.



As a result, by 2013 the number of countries issuing National eID's will overtake the number of countries issuing traditional National ID's. The total number of countries worldwide issuing National ID's will rise from 100 in 2010 to 125 in 2010, with the share of National eID's climbing from 29% to 66%. The highest adoption rates will be in Europe, while Africa experiences the highest number of new National eID's in countries that had no or only rudimentary ID programs. On the flipside, there are no indications that a number of leading National ID-less economies in the developed world (USA, Canada, Australia, UK, and others) will make the move to a National ID – "e" or not.

Alongside the rise in National eID programs it is worth noting that no universal model has emerged. The stakes are high, both from the national government and the vendor community perspective, and the outcome uncertain. Neither short-term revenue for vendors nor 100% distribution of credentials to the eligible population of a given country should be considered the hallmarks of success. Instead, it is likely that success in the National eID market will be measured by the proliferation of eID enabled services and programs, the revenue (or cost reductions) such services will generate to public and private entities, and the uptake thereof by the general eID equipped public.

For government authorities and vendors to move forward it is critical to understand the data driving these trends, including worldwide unit adoption and revenue forecasts across multiple elements, as well as the implementation of alternative business models. *The Global <u>National eID</u> Industry Report* provides the kind of hard data, "hype free" insight, meaningful analysis, and believable forecasts that provide critical support to the healthy evolution of the identification solution industry.

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Introduction

The Global <u>National eID</u> Report is a data driven analysis of the state of the market for electronic national identity documents and the systems and infrastructure that support them. The report relies extensively on primary sourced data (which for the purposes of this report is defined as quantitative data obtained from sources directly tabulating or producing this data), and on secondary sourced data from trusted sources. The report then leverages model-derived forecasts to present a comprehensive view of these markets. Data acquired, modeled, and forecast includes the number of credentials issued, the type and distribution of authentication methods, biometrics enrollment, the value and projected growth of the markets, as well as key solution components and technology forecasts.

Definitions

For the purposes of this report, the following definitions apply:

<u>Traditional National ID</u>: A paper or card based identity document holding at minimum a citizen's biographic data according to the requirements of that particular country. The identity document may hold biometric data such as the holder's photograph or one or more fingerprints; it may incorporate one or multiple security features to prevent forgeries, as well as automated verification tools such as a barcode or Machine Readable Zone.

<u>National eID:</u> A card-based identity document with an embedded IC chip to facilitate the cardholder's electronic identification and authentication in addition to the visual identification typical of traditional National ID's.

Methodology

A combination of primary sourced data and model based projected data was used to develop the forecasts and analysis included in this report. Primary data acquired directly through government agencies and well-credentialed non-governmental agencies



was presumed valid. Data acquired through sources with less qualified credentials or with strong motivation for particular outcomes was validated through additional sources and/or model based alternatives.

Data and Data Acquisition

Primary data used to complete the analysis and develop forecasts for this report includes annual National ID (traditional and eID) unit volumes, population levels and growth, domestic enrollment centers, existing technology pilots and deployments, as well as budgetary allocations and reported costs for relevant programs, and units and value of deployed technology.

Primary data was obtained directly from government agencies such as Ministries of Interior, Finance, and Justice. Additional data was sourced from non-governmental agencies tasked with providing domestic and global insight into population statistics and government expenditures. Source materials include online data and databases, published statistics, policy papers, budgets, and program analyses, public statements, press releases, and direct consultation.

Finally, data was obtained through publicly available information from, statements by, and direct consultation with civil servants, consultants, vendors, integrators, analysts, and other third parties directly involved or with direct knowledge of specific relevant programs and deployments. In some cases, these third parties provided confirmation of the accuracy of data obtained from sources deemed to require validation.

Model Development

Models were developed to project specific data for countries where primary data was unavailable from government or non-government sources. The modeled projections use known data such as population, deployment practices, and attrition as a basis for determining unknown values by referencing global statistics and those from similar countries or regions where primary data is available. These projections are adjusted to account for regional indicators and variations such as political and social stability, levels



of development, financial performance and stability, as well as other country or region specific indicators or influencers. Models are also adjusted to account for existing market conditions, current deployments, anticipated projects, and existing and planned infrastructure. Conservative assumptions for predictive factors such as technology pricing and anticipated adoption rates are introduced to determine forecasts.

Country Profiles

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Each of the 82 countries that currently has or will have a National eID program in place by the end of 2015 is profiled in a one page overview. These overviews provide details about National eID programs including the year the program was initiated, types of biometric(s) used, type of IC chip used, annual volumes and revenue, numbers in circulation, validity, and number of issuing locations. In addition, 13 countries currently not issuing National ID's and having no or no firm plans to issue National ID's by 2015 are profiled separately.

Market Analysis

Analysis is drawn from significant market and technical developments, tests, pilots and deployments, public domain and private data sources, research and reports, surveys, and interviews with vendors, integrators, intermediaries, customers, privacy and civil liberties advocates, and other relevant technology and leading industry experts. Critical data and key implications drawn from the primary data and forecasts are filtered through this knowledge base and presented from both a policy and planning perspective as well as from an opportunity assessment and market value perspective.

Forecasts

The final section of the report presents adoption and revenue forecast data globally, regionally, by solutions components and technologies. The forecasts have been developed through a rigorous process relying on the best available and or projected data. As with all market forecasts, the most significant indicator is the scale of the projections not the precise numbers. Furthermore, where assumptions were required to calculate forecasts, the underlying principal was to rely on conservative rather than



aggressive estimates. In this way, the report offers a conservative market forecast baseline indicating the scale of opportunity expected over the next five years.

Because of the complex nature of the National eID markets and the associated complexity involved in modeling data and forecasting revenues, <u>it is critical that the</u> <u>methodology, assumptions, and model notes in the Appendix be reviewed to gain</u> <u>relevant insight form the data.</u> Additional information is provided in the report in specific sections to reinforce the underlying assumptions where deemed necessary.



Preliminary Table of Contents

About Acuity Market Intelligence

Report Overview

Preface

Introduction Definitions Methodology Data and Data Acquisition Model Development Country Profiles Market Analysis Forecasts

Preliminary Table of Contents

Preliminary Table of Figures

1 Executive Summary

2 State of the Market

Market Adoption and Sizing Traditional National ID Market National eID Market Critical Market Drivers Market Dynamics National eID Constellation Marketplace Evolution Key Vendors

3 Global Solutions Overview Critical Solutions Components

Enrollment Credentialing Verification Authentication Solutions Integration

Technology

Biometrics capture equipment Document readers Credentials PKI

4 Africa Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles





Angola Djibouti Egypt Gambia Ghana Kenya Lesotho Liberia Madagascar Malawi Morocco Mozambique Nigeria Rwanda South Africa Tanzania Zambia

5 Asia Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles Afghanistan Armenia Azerbaijan Bangladesh Brunei China East Timor Fiji Hong Kong India

Indonesia Japan Macau Malaysia Mongolia Nepal Pakistan Sri Lanka Thailand

6 Carribean Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles Costa Rica





El Salvador Guatemala Trinidad and Tobago

7 Europe Regional Market Analysis **Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles** Albania Austria Belgium Bosnia Herzegowina Croatia Czech Republic Estonia Finland France Germany Greece Hungary Italy Latvia Lithuania Luxemburg Macedonia Malta Netherlands Poland Portugal Romania Russia Serbia Slovakia Slovenia Spain Sweden Turkey 8 Middle East Regional Market Analysis **Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles** Bahrain Iraq Kuwait Oman Qatar





Saudi Arabia United Arab Emirates

9 North America Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles Mexico

10 Pacific Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast Country Profiles Tonga

11 South America Regional Market Analysis Trends and Evolution Unit Adoption Forecast Revenue Forecast

Country Profiles Brazil Chile Ecuador Peru Venezuela

12 National ID Overview

13 Vendor Overview

Vendor Analysis Vendor Product and Services Overview

14 Key Findings and Implications

Appendix

Forecast Methodology and Assumptions

Methodology Assumptions and Notes



Preliminary Table of Figures

Figure 1-1 Global NeID Revenue Figure 1-2 Global NeID Market Growth Figure 1-3 Global NeID Unit Adoption Figure 1-4 Global Solution Components Revenue Figure 1-5 Global Technologies Revenue Figure 1-6 Global Biometrics Adoption Figure 1-7 Global Document Reader Adoption Figure 1-8 Global PKI Adoption Figure 2-1 Global NeID Revenue Figure 2-2 Regional Market Share of NeID Revenue 2010-2015 Figure 2-3 Global NeID CAGR Table Figure 2-4 Global NeID Revenue by Region Figure 2-5 Global NeID Growth Figure 2-6 Global Traditional National ID Revenue Figure 2-7 Global NeID Unit Adoption Figure 2-8 Global Traditional National ID Unit Adoption Figure 2-9 Global NeID Growth Figure 2-10 Global Traditional National ID growth Figure 2-11 NeID Constellation 2010 Figure 2-12 NeID Constellation 2015 Figure 2-13 Vendor Category Segmentation Figure 3-1 Solutions Components Definitions Figure 3-2 Global Solutions Component Table Figure 3-3 Global Solutions Component Revenue Figure 3-4 Technology Definitions Figure 3-5 Global Technology Revenue Table Figure 3-6 Global Biometrics Capture Revenue Chart Figure 3-7 Global Biometrics Capture Unit Adoption Chart Figure 3-8 Global Document Reader Revenue Chart Figure 3-9 Global Document Reader Unit Adoption Chart Figure 3-10 Global PKI Revenue Chart Figure 4-1 Africa NeID Adoption Figure 4-2 Africa Biometric Capture Unit Adoption Figure 4-3 Africa Document Reader Unit Adoption Figure 4-4 Africa NeID Revenue Figure 4-5 Africa Solution Components Revenue Figure 4-6 Africa Biometric Capture Revenue Figure 4-7 Africa Document Reader Revenue Figure 4-8 Africa PKI Revenue Figure 5-1 Asia NeID Adoption Figure 5-2 Asia Biometric Capture Unit Adoption Figure 5-3 Asia Document Reader Unit Adoption Figure 5-4 Asia NeID Revenue Figure 5-5 Asia Solutions Component Revenue Figure 5-6 Asia Biometric Capture Revenue Figure 5-7 Asia Document Reader Revenue Figure 5-8 Asia PKI Revenue Figure 6-1 Carribean NeID Adoption Figure 6-2 Carribean Biometric Capture Unit Adoption



Figure 6-3 Carribean Document Reader Unit Adoption Figure 6-4 Carribean NeID Revenue Figure 6-5 Carribean Solutions Component Revenue Figure 6-6 Carribean Biometric Capture Revenue Figure 6-7 Carribean Document Reader Revenue Figure 6-8 Carribean PKI Revenue Figure 7-1 Europe NeID Adoption Figure 7-2 Europe Biometric Capture Unit Adoption Figure 7-3 Europe Document Reader Unit Adoption Figure 7-4 Europe NeID Revenue Figure 7-5 Europe Solutions Component Revenue Figure 7-6 Europe Biometric Capture Revenue Figure 7-7 Europe Document Reader Revenue Figure 7-8 Europe PKI Revenue Figure 8-1 Middle East NeID Adoption Figure 8-2 Middle East Biometric Capture Unit Adoption Figure 8-3 Middle East Document Reader Unit Adoption Figure 8-4 Middle East NeID Revenue Figure 8-5 Middle East Solutions Component Revenue Figure 8-6 Middle East Biometric Capture Revenue Figure 8-7 Middle East Document Reader Revenue Figure 8-8 Middle East PKI Revenue Figure 9-1 North America NeID Unit Adoption Figure 9-2 North America Biometric Capture Unit Adoption Figure 9-3 North America Document Reader Unit Adoption Figure 9-4 North America NeID Revenue Figure 9-5 North America Solutions Component Revenue Figure 9-6 North America Biometric Capture Revenue Figure 9-7 North America Document Reader Revenue Figure 9-8 North America PKI Revenue Figure 10-1 Pacific NeID Adoption Figure 10-2 Pacific Biometric Capture Unit Adoption Figure 10-3 Pacific Document Reader Unit Adoption Figure 10-4 Pacific NeID Revenue Figure 10-5 Pacific Solutions Component Revenue Figure 10-6 Pacific Biometric Capture Revenue Figure 10-7 Pacific Document Reader Revenue Figure 10-8 Pacific PKI Revenue Figure 11-1 South America NeID Adoption Figure 11-2 South America Solutions Integration Unit Adoption Figure 11-3 South America Biometric Capture Unit Adoption Figure 11-4 South America Document Reader Unit Adoption Figure 11-5 South America PKI Unit Adoption Figure 11-6 South America NeID Revenue Figure 11-7 South America Document Reader Revenue Figure 11-8 South America PKI Revenue Figure 12-1 National ID Overview

Figure 13-1 Vendor Products and Services Overview



Sample Country Profile

Chile

Synopsis

Chile has a stable and growing economy with a digital infrastructure well-prepared to support a National eID and eGovernment. It introduced an ePassport in 2009, and is likely to reuse sunk investments when the National eID will be introduced in 2012. The NeID will contain many physical security features, face and finger biometrics, contact chip and a digital signature. Chile plans to offer a range of government services in addition to basic identification.

At a glance

Population	16,454,145
Eligible cardholders	16,125,060
eID Evolution Index ranking	27
eID Services Index ranking	22
NeID launch	2012
Age first issued	0
Age mandatory to carry	18
Validity	5 years
Cost to citizens	\$7.60
Contact chip	Y
Contactless	Ν
Match-on-card	Ν
Finger	Y

Annual Unit and Revenue Projections

	2010	2011	2012	2013	2014	2015
Traditional NID (million units)	4.3	4.3	0	0	0	0
Traditional NID (million USD\$)						
NeID (million units)	0	0	4.3	4.3	4.3	4.3
NeID (million USD\$)						
Biometric capture units)	0	1500	1000	500	250	250
Biometric capture USD\$)						
Document readers (units)	0	750	750	1200	1300	1400
Document readers (USD\$)						



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