The Global ePassport & eVisa Industry Report

Market Analysis and Forecasts 2009 to 2014

Comprehensive Market Data. Critical Insight. Targeted Revenue Forecasts

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by

ACUITY

MARKET INTELLIGENCE

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Report Overview

Scope: This report presents unique insight into the worldwide opportunity for the development of secure biometrically-enabled passport and visa documents. 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 This comprehensive report offers unbiased critical perspective and previously unpublished data and statistics on the ePassport and eVisa marketplace.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 ePassport and eVisa solutions.

AUDIENCE: Individuals responsible for strategic planning, business and market development, and sales related to ePassport and eVisa initiatives including vendors, integrators, investors, consultants, solution providers, and public sector staff responsible for developing and implementing ePassport and eVisa policies and 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 passports issued, program costs, and the number and type of visas issued. 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: The ongoing development and production of secure ePassport and eVisa infrastructures will provide sustainable market opportunities as countries stabilize existing programs, continually incorporate new document and IT security features, update and replace aging equipment, and re-issue documents and reengineer processes in five to ten year cycles. By 2014, the deployment of a secure global border crossing infrastructure that leverages the proliferation of ePassports and eVisas will begin in earnest. With an emphasis on automated self-service verification of documents and identity and global data exchange, there will be increasing efforts to integrate global systems that process ePassports and eVisas so that any given automated solution can process any ePassport holder with or without am accompanying eVisa. In this way the imminent global travel and border control transformation will both be driven by and drive ePassport and eVisa market evolution.

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Preface

June 2010

EPassports and eVisas are poised to fundamentally change world travel by delivering on the promise to create a secure, consistent, and far more reliable global identification infrastructure. The markets for ePassports and eVisas (those that incorporate biometrics) are large, complex and difficult to quantify. These marketplaces include the enrollment, credentialing, and verification processes as well as solutions integration and the associated physical and logical technology and infrastructure required to deploy and leverage biometric passports and visas. Requirements and processes differ from country to country, employ various levels of automation, and may or may not be integrated with local and regionally based border control and facilitation systems.

Almost all of Europe has or will have ePassports by 2010, about 16 African countries have or will have them shortly, the United States is issuing ePassports, and Canada will by 2011. In addition, Japan, Korea, Singapore, Australia and New Zealand are also issuing ePassports. Altogether, at least 90 countries worldwide will be offering ePassports by the end of 2010 with 105 set to adopt by the end of 2014. With Western Europe's rapid current and planned adoption of ePassports and eVisas, emphasis has been shifting to Eastern Europe, the Middle East and Africa. Asia, with it's vast population and sustained economic growth will surpass Europe in number of ePassports issued by 2014.

The visa situation is not as clear. The UK, Sweden, Norway, France, Germany, Belgium, Luxembourg, Lithuania have biometric eVisa programs. Saudi Arabia is currently identifying an outsourcing partner for producing eVisas and many other nations are in various stages of defining, evaluating or beginning to deploy biometric eVisas. US-VISIT, while not purely an eVisa program, incorporates biometric visas as part of its overall approach to biometric-based border control and has become an international

model for border screening. Japan, South Korea and most recently Indonesia have adopted similar border screening programs but have yet to incorporate biometric visas into their processes.

The vendor ecosystem is equally large and complex and clear value chains have yet to be defined. Almost without exception, every vendor in the marketplace claims they have the "leading solution" for passports, visas, and/or border control, that their approach or methodology is the best, and that their key areas of focus are the most critical. Competition for every procurement is intense and in this environment, claims of "market leadership", particularly in terms of technology performance, are not verifiable, let alone useful in most cases. Demonstrated capability, high degrees of customer satisfaction, and a willingness to provide a platform for continuous innovation are critical in defining the market in favorable terms that suit a particular vendor or solution approach.

Regardless of adoption status on a country-by-country basis, ePassports and eVisas are becoming commonplace and these markets will provide sustainable revenue. While the cost and complexity of deployments will remain a significant obstacle for small and developing nations, investment and expertise provided by larger, wealthier states that have a vested interest in securing the global travel infrastructure will address this market gap. Even for those countries that have fully deployed programs, sustained revenues associated with lifecycle upgrades, updates, and security enhancements will be substantial. In addition, as more document and biometric readers and automated border control solutions are deployed, technology and process interoperability will become a reality and aggressive border system updates, upgrades, and replacements will become mainstream and provide more predictable, stable market dynamics that promise significant on-going opportunities.

Over the past few years, Acuity has had consistent, ongoing requests for insight into the dynamics and specific opportunities in this marketplace. The most sought after

research in this highly competitive marketplace has been concrete data on country specific adoption, opportunity sizing including credential volumes and issuing locations, planned procurements, actual and projected expenditures/revenues, and vendor positioning and deployments. To date, this type of data has existed only in bits and pieces, if at all, and prohibitively expensive and time consuming to aggregate.

The Global ePassport and eVisa Industry Report is Acuity's initial response to this market demand. This report is the first in a series that will provide 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 ePassport and eVisa Industry Report is a data driven analysis of the state of the market for these two critical biometric based travel credentials. 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 distribution of biometrics enrollment and verification units and ePassport document readers, 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:

EPassport: A combined paper and electronic travel document used to authenticate the identity of travelers that incorporates a contactless IC "smart" chip and biometrics, supports a combination of electronic and optical security features including watermarks, optically variable devices, and holograms, and securely stores the personally identifiable information printed on the document and enrolled biometric data.

EVisa: The electronic authorization and credentialing process for granting temporary access to a country for a specified purpose for a specified period that relies on biometrics to establish and confirm identity.

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 passport and visa volumes, population levels and growth, number and location of border crossing points, diplomatic missions and consulates, domestic passport 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 Departments of Immigration, Interior, State, Homeland Security, Foreign Ministries, and Audit and Accountability Offices. Additional data was sourced from non-governmental agencies tasked with providing domestic and global insight into population, immigration, passenger travel, border management, 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, geographic size, and visitor arrivals 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.

Once primary sourced or projected data was available for all relevant countries, forecast models were designed to project unit volumes of passports, visas, and the related technologies covered in this report - biometrics, document readers, credentials, and smart chips for all countries adopting ePassports and eVisa. Revenue forecasts were then developed based on these complete primary sourced and projected data sets.

Benchmark Analysis

In the process of data acquisition, data projection, and market forecasts, certain consistent measures of deployment and adoption levels, service expectations and performance, and operational costs emerged. An assessment of these measures has been included in the report as a Benchmark Analysis that provide reference points for implementing new ePassport and eVisa programs or evaluating exiting ones.

Country Profiles

Each of the 105 countries that currently has or will have a biometric-based ePassport program in place by the end of 2014, that are issuing eVisas, or that simply use inspection equipment to verify ePassports, is profiled in a one page overview. These overviews provide details about ePassport and eVisa (if deployed or planned to be deployed by 2014) programs including the year the program was initiated, types of biometric(s) used, annual volumes and revenue, numbers in circulation, validity, next procurement, and number of domestic and off-shore issuing locations.

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 ePassport and eVisa markets and the associated complexity involved in modeling data and forecasting revenues, _it is critical that the methodology, assumptions, and model notes in the forecast section be reviewed to gain relevant insight form the data._ Additional information is provided in the report in specific sections to reinforce the underlying assumptions where deemed necessary.

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