

Virtual Consulate Primer:

How to design and implement an e-Visa programme

Partnership-based e-Governance Innovations
from Armenia and Saudi Arabia



*Europe and
the Commonwealth
of Independent States*



i n v e n t

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PREFACE

A commitment to e-governance best practices is vital for moving towards open information societies. The Heads of State for the Republic Armenia and the Kingdom of Saudi Arabia were among those who recently participated in the development and endorsement of the 2005 World Summit Outcome statement and agenda. As part of continued commitment to the United Nations Millennium Development Goals, these and other countries have demonstrated their determination to pursue Target 18: "In cooperation with the private sector, make available the benefits of new technologies, especially information and communications technologies" of MDG 8 – Develop a Global Partnership for Development.

In this book we present the examples of Armenia and the Kingdom of Saudi Arabia, working in cooperation with UNDP and Hewlett-Packard towards e-governance solutions within the rubric of the MDG agenda.

While there has been much progress in governments using ICTs to make their processes and services more transparent and accessible, it is also difficult terrain. There exist many barriers to adapting processes to ICT networks. These are well-documented and centre around protection of monopolies and hierarchies within government administrations, inability to justify new programmes, lack of resources and expertise, and lack of legal or legislative framework for different elements of the programme.

It is important to be cognisant of why e-governance initiatives fail. It is even more important to identify when they flourish. This book describes the highly successful implementation of e-visa programmes in Armenia and Saudi Arabia. We are proud of our participation in these programmes, and even more so to document and communicate these achievements in the hope of encouraging other countries to undertake similar programmes. The cases described in this publication are not intended to advocate or promote any specific technology or organisation, but to show how international organisations, governments and the private sector working together can contribute to public goods nationally, regionally and globally across frontiers.

As detailed in these pages, the complex of development, design and implementation of virtual consulate applications is no small feat and involves adapting processes and networking across the administrations of numerous stakeholders. The geographic, social, and historical differences between the two countries, and their different reasons for embarking on their respective e-visa programmes, demonstrate that successful e-government initiatives are feasible in any economic, cultural and social setting.

Preface

Virtual consulate programmes have many aspects that are directed toward users outside of the country. Efforts to promote regional cooperation can benefit from an increase in countries offering such services as they promote harmonisation of national conventions, standards and practices – for foreign affairs and also other sectors of public services.

The ultimate beneficiaries of e-government initiatives are ordinary people: people wanting access to information and services; and people working within these institutions that are charged with serving the public. It is essential to cultivate these open governance practices and evolving public service competencies. With careful use of ICTs, both of these have the potential to become more efficient and even more importantly, people-friendly and client-oriented.

UNDP and Hewlett-Packard, with advice and experience from the governments of Armenia and Saudi Arabia, are ready to engage in knowledge transfer to interested countries.

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INTRODUCTION

e-Government solutions

A healthy governance framework is built upon the foundations of open institutions across all sectors of society. Using new information and communication technologies (ICTs), e-government applications have a particularly important role in making government services and information more widely accessible. This is an important step in public administration – increasing the reach of services beyond the offices of the major cities, and creating transparency in information practices.

Further, e-government applications can be seen as the nuts and bolts of larger e-governance initiatives. Programmes such as e-visa create inroads for intra-departmental communication and information processes, and highlight an emerging set of new competencies for public management.

The case studies in this booklet present two e-visa programmes that have recently been initiated in Armenia and the Kingdom of Saudi Arabia. Clearly these are two very different parts of the world and the divergent e-visa programmes provide a window onto the different strategies and priorities that are the foundations of the design choices. With this publication, we invite countries that do not yet offer the option of e-visa to consider the different models highlighted here. There are also, however, underlying conditions and steps that must be taken to ensure success. In the final chapter, we outline the key points and lessons learned that should be considered for e-visa programmes.

Foundations for successful e-government programmes

The first imperative of e-government solutions is *political will*. By way of example, creating databases for government information is an important way to increase efficiency and effectiveness of government services. However, allowing access to such a database by another government agency or department creates a network dynamic, which requires coordination, technology resources, expertise, and political will across the different government sectors that this is an important and useful thing to be able to do. These are the first steps of embarking upon e-government initiatives. Protection of monopolies of information and other resources, and resistance to information sharing will generally ensure failure – even if these practices exist for legitimate reasons such as privacy or security concerns. In a scenario of having achieved

2005 World Summit – reaffirming commitment to MDGs

During the 2005 World Summit (14-16 September), the General Assembly adopted the Summit Outcome. In this document, the Heads of States and Governments reaffirmed the United Nations Millennium Declaration, adopted at the dawn of the twenty-first century, and strongly reiterated determination to ensure full realisation the Millennium Development Goals by 2015. The Heads of States and Governments reaffirmed their commitment to the global partnership for development set out in the Millennium Declaration and called the private sector, non-governmental organisations and other stakeholders in national development to enhance their contributions.

The Heads of States and Governments also emphasised the role of science and technology for development, recognising that including information and communication technology, are vital for the achievement of the development goals and that international support can help developing countries to benefit from technological advancements and enhance their productive capacity. Further, they expressed commitment to:

- strengthening and enhancing existing mechanisms and supporting initiatives for research and development, including through voluntary partnerships between the public and private sectors;
- promoting and facilitating access to and the development, transfer and diffusion of technologies;
- implementing policies at the national and international levels to attract both public and private investment, domestic and foreign, that enhances knowledge, transfers technology on mutually agreed terms and raises productivity;
- building a people-centred and inclusive information society so as to enhance digital opportunities for all people in order to help bridge the digital divide, putting the potential of information and communication technologies at the service of development; and
- addressing new challenges of the information society by implementing the outcomes of the Geneva phase of the World Summit on the Information Society and ensuring the success of the second phase of the Summit, to be held in Tunis in November 2005.

The 2005 World Summit <www.un.org/summit2005/>.

political will, the different stakeholders agree to jointly address these (and other) areas of concern to protect their ability to fulfil their mandate while improving government processes, administration and access to information.

Evidence of political will can be found in the agreement to undertake *e-government* programmes. And this is the second underlying condition for effective e-administration programmes. If there is an explicit policy to make public administration more effective and responsive using new technology resources, this policy provides reference points and an overarching framework for particular initiatives such as e-visa programmes.

Project rationales

Both Armenia and the Kingdom of Saudi Arabia benefit from strong political will and the existence of more general e-government programmes. However, their respective rationales for embarking upon online coordination of e-visa application processing evidence very different target groups and priorities.

Armenia has limited overseas consular resources. Being the transaction point for obtaining visas, the lack of consulates stems opportunities for growth in tourism – in particular visits from foreign nationals of Armenian descent. This is a situation that will resonate with most emerging and developing economies, and is compounded by these countries' desire to maintain ties with expatriate and diaspora communities. Thus, the Armenian e-visa programme is focussed towards providing an expedient and paperless process to compensate for lack of facilities and to mitigate inconveniences and costs of the traditional visa delivery system (courier or travel costs, and potential for passports going missing in the process)

Saudi Arabia's e-visa system is designed to address a completely different set of concerns around facilitating and coordinating the vast numbers of pilgrims who visit the country each year, peaking with more than two million visitors during the Hajj. Because of the volume, manual processing of applications has all but become impossible. Additionally, the Ministry of Hajj undertakes facilitating these pilgrimages, and thus is further concerned with ensuring access to information and services infrastructure for travel, accommodation and other pilgrim needs. Thus, the Saudi Arabia programme is a complex of public and private organisation, and relies upon intermediaries (such as approved travel agents) as an interface for individuals. The system significantly reduces the time needed for visa application approval and offers a range of information and travel services but only in later stages will individuals be able to access these resources themselves.

Back-office processes

The intention of such programmes is to both replicate and improve upon traditional visa delivery systems. This means that the technology and system choices must build-in appropriate security and information verification and reporting functions. Additionally, new systems such as for payment of services must adhere to acceptable standards for online transactions and information sharing. As noted above, the Saudi Arabia portal in part mitigates these factors by being, for now, a closed environment – providing access only through approved intermediaries.

The public-private partnership undertaken for the Saudi Arabia portal is a further reflection of the logistical requirements and expertise required to negotiate the different service providers' own proprietary systems. Conversely, with a much less complicated focus on efficient and paperless visa approval and delivery, the Armenian e-visa programme has been developed with an accessible and open interface.

This difference in focus is also evident in the technology platforms for the two programmes. Armenia was able to conserve on resources by adapting off-the-shelf software programmes. Saudi Arabia was required to avail itself of private sector expertise to build applications and the required infrastructure to address the level of organisation needed to coordinate five to six million pilgrim visits per year. Countries planning to embark upon an e-visa programme will need to assess their own national institutional frameworks and resources to determine the particular technology approaches and design that will be most appropriate.

A virtual welcome

An e-visa programme is but one component of e-government suites of services. In this respect, it must conform to the overall objectives and policies that have been negotiated and designed to more effectively serve the population using new and emerging information and communication technologies.

However, unlike many other e-government programmes, e-visa initiatives are directed towards potential visitors rather than citizens of a country. The e-visa website may well provide the first impression of how it will be to visit, study or do business in a country. Indeed, the facility of the e-visa application and approval procedures will confirm this perception. Both of the case studies here document reductions in the time to process and approve visas to a fraction of the time taken using their previous systems, while increasing the number of visas processed each year, and in the case of Saudi Arabia, simultaneously improving travel logistics for pilgrims. These successes are important. We welcome you to the exemplary e-visa programmes of Armenia and Saudi Arabia. Visas are not required to enter these pages.

ARMENIA

Overview

In 2002, Armenia had twenty-three consular representatives in twenty-two countries to issue entry visas to foreign nationals, with only citizens of the CIS countries being able to enter the country without a visa.¹ The citizens of a vast majority of countries, if they wanted to visit Armenia, were required either to visit an Armenian mission in another country to submit a visa application or to mail their passport and application to an Armenian consular mission and await its return. Although infrequent, there were cases of passport losses, and people invested considerable time and resources on travelling to an embassy or using express postal services and couriers.

The demand for visa requests increases each year – during 2004, visitors from over 90 different countries travelled to Armenia – however, it has not been possible to correspondingly increase the number of Armenian missions issuing visas. An initial solution of issuing visas upon arrival at the Yerevan International Airport was introduced. While a more convenient option for some, visitors sometimes end up queuing for more than an hour to obtain the airport arrival visa, with no prior guarantee that the visa will indeed be issued. For many visitors, the assurance of a visa in the passport is a precondition for travel. To simplify and streamline the visa application and approval process, the Ministry of Foreign Affairs (MFA) of the Republic of Armenia designed and developed a paperless online visa application process.

The e-visa system is directed at all prospective tourists living anywhere around the globe with access to a computer and an Internet connection. However, indirectly the system targets foreign nationals of Armenian origin to facilitate their access to visa delivery. This class of visitor accounts for lion's share of Armenia's tourism.

Major benefits

Armenia was the second country in the world to create and launch an e-visa programme, recognising early on the benefits of such a system (Australia was the first). In part, the envisioned benefits correspond to the larger e-governance framework that the country has also embarked upon.

¹ Today, based on the principle of reciprocity, the Republic of Armenia waives entry visa requirement for the nationals of some thirty countries; while around thirty consular representations abroad issue entry visas for Armenia.

Specific objectives of the e-visa programme were to create a 100% paperless system, comprising a website and web-based user interface to provide information about visa formalities for the Republic of Armenia, e-visa eligibility, the online visa application submission facility, as well as a facility to collect fees. The back-office administration and inter-agency communications were also designed as web-based and 100% paper-free. A further objective was to significantly diminish (if not to eliminate) the issuing of visas using conventional processing within three years.

Thus, the major benefits of implementing the e-visa programme were both inward and outward looking. In terms of e-government practices, benefits included:

- more efficient provisioning of public services;
- better use of human resources;
- increased training levels and public service competencies;
- paperless administrative applications;
- security of transactions and information storage; and
- improved intra-departmental communication.

The e-visa programme also offers outreach benefits, making the country more accessible to visitors. Anticipated benefits in this regard included:

- a high profile welcome point for the country;
- easy information access for foreign nationals;
- streamlining of visa application processes; and
- an increase in tourism and the associated economic benefits.

Prior to implementation

The online e-visa application process allows foreign nationals planning to visit Armenia to obtain a visa by submitting an online application and payment. With an e-visa, foreign nationals do not need to submit any further paperwork upon arrival. Instead, individuals approved for a visa are assigned a reference number upon successful completion of their application. The reference number is also used during the application process to enable individuals to check the status of their application and to obtain the details of the e-visa. Finally, the individual e-visa number serves as the paperless entry visa, and border guards can verify the existence of the e-visa by cross-checking the arriving visitor's passport number.

The new online process to acquire a visa must adhere to the same information requirements and checks as the traditional visa process. Although the application and approval process can be optimised and made more efficient, different stakeholders and information processing points spanning different ministries and agencies must still be provided with the relevant information to fulfil their respective duties. Accordingly, coordination was required across the offices of the primary parties implicated. These were:

- Ministry of Foreign Affairs;
- Ministry of Justice;
- Ministry of Finance;
- the then Ministry of National Security (it has become National Security Service);
- Yerevan International Airport;
- Border Guards; and
- Interior Ministry Passport Office.

Because of humble and limited resources available to launch the initiative, and the need to minimise learning curves and increase accessibility, a Windows environment was used as a platform, with web-based HTML and corresponding tools, i.e. database engines, user interfaces, etc.

During implementation

The e-visa process was designed to be implemented in phases. During the first phase only a single entry short-term tourist visa (good for a 21-day visit) was made available online, and only international visitors travelling by air arriving through Yerevan International Airport were eligible to use an e-visa. Subsequent phasing in of the programme will include acceptance of e-visas at land borders (for Georgia and Iran), allowing different flavours of e-visas (diplomatic, multiple entry, transit, etc.), and creating applications for student and business visas.

Because of its central role in whether or not to proceed with the e-visa programme and the imperative of accessing its database, the then Ministry of National Security (now known as the National Security Service) was the main partner involved operationally during implementation. However, all stakeholders listed above were implicated in the process because of their critical roles in the different aspects of the programme development. The resources however were shared by the Ministry of Foreign Affairs and UNDP only.

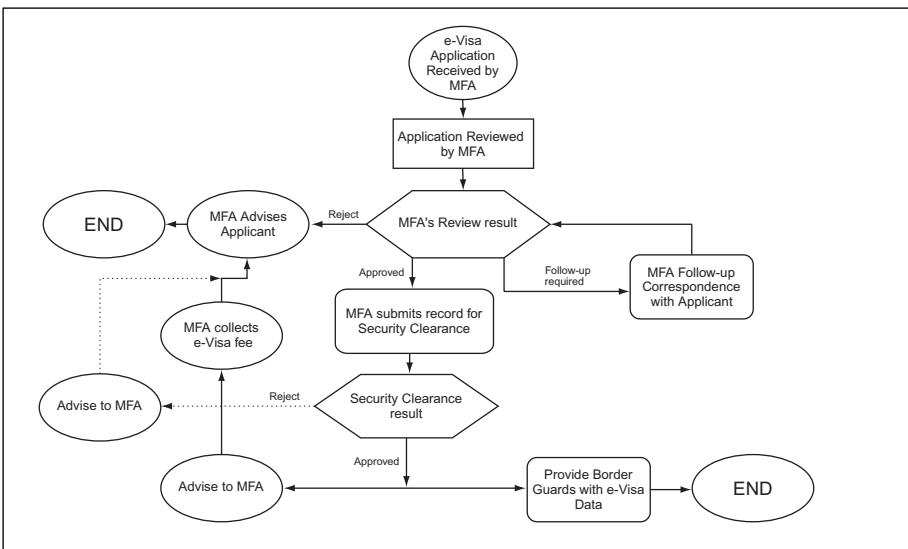
Extensive advocacy was effected before implementation of the e-visa programme to convince sceptical officials about the benefits of the system. Training was also necessary for those working on the e-visa system at the MFA, as well as for the airport border guards. The public awareness campaign naturally addressed potential users, i.e. foreign nationals, using primarily the Internet, booklets in consulates, and articles and announcements in Armenian periodicals having international distribution.

Analysis of the business process was done by the MFA. They began by examining the entire circuit of conventional visa administration – from the moment of application submission at a consulate to the issuance and subsequent acceptance of the visa upon entry to the country. While the e-visa process was designed to adhere to the conventional visa cycle, its business process was optimised. e-Governance mecha-

nisms are not merely electronically improved versions of the traditional physically delivered public services, they also allow for a jump to virtually provided public services requiring fewer resources, bypassing an extensive stage of physical infrastructure development, and intersecting with other online services and information access. However, availability of online services may be limited in the early stages due to national levels of ICT development and deployment of infrastructure and services. Thus, the Armenia e-visa service at the time of its implementation was an *alternative* means of public service provision. As applications such as this one are introduced and refined, they will eventually demonstrate evidence of efficiency and competitiveness compared with location-based service and information provisioning.

The business process was both shortened and optimised, with the role of the consulate disappeared entirely, reducing the time and resources allocated by consular staff in Armenian missions around the world to receiving and processing tourist visa applications. This allows them to direct their attention to provision of other more important and critical services. The e-visa application goes directly to the Ministry of Foreign Affairs where it is processed and then sent on to the National Security Service administration for clearance. Once the clearance is granted, usually within 24 hours, the MFA's database and records are updated. Applicants can check the status of the process and the eventual acceptance of their applications and visa approval online. Simultaneously, the MFA charges the applicant's credit card and communicates e-visa data to the border guards, so that visitors can be easily identified upon their arrival

Figure 1 - Armenia's e-Visa application process



and allowed entry. The entry stamp in a traveller's passport indicates that the traveller was admitted based on an e-visa. In the event of rejection, the MFA communicates the decision to the applicant, and the cycle is terminated.

The e-visa procedure for Armenia does not replace other existing options for obtaining visas, either from an Armenian Consulate or at the Yerevan International Airport upon arrival. Although the e-visa is currently the most expensive option (60 USD, compared with an average price of 50 USD for visas obtained at a consulate, and 30 USD for airport arrival visas), the number of people opting for the e-visa is growing. This is testimony to the fact that people estimate their overall e-visa transaction costs to be lower regardless of the higher one-time payment. For visitors residing in a city or country where there is no Armenian Consulate, the savings are significant with regards to travel time and costs, or postal/courier charges back and forth. The latter option is also fraught with the danger of passport loss.

The government's benefits are also significant. Having one or two staff assigned to administering e-visa applications within the Ministry of Foreign Affairs is no doubt less costly than the resources corresponding to the same efforts of several dozen consular or diplomatic agents living and working in a foreign country.

Because the e-visa process was envisioned as a 100% paperless system, ICT resources in government and nongovernmental departments and organisations have evolved

Figure 2 - Armenia's e-Visa website - <http://armeniaforeignministry.com/eVisa/>

The screenshot shows the official homepage of Armenia's e-Visa system. At the top, there is a header with the text 'e-VISA' and 'Ministry of Foreign Affairs of the Republic of Armenia'. Below this is a navigation menu with links: 'e-Visa Home', 'What is an e-Visa', 'Eligibility', 'Costs', 'FAQ', 'Apply for e-Visa', 'Check status', 'Support', and 'Contacts'. A date stamp indicates the page was last updated on 04/09/2005 2:08:25 PM. The main content area features the Armenian coat of arms on the left and the text 'Welcome to the Republic of Armenia's e-VISA Issuance System official homepage!' in the center. Below this, there are three paragraphs of text explaining the e-Visa system, its benefits, and how to apply. At the bottom, there is a link to 'Apply for an e-Visa or Review the status of an e-Visa application' and a small logo for UNDP.

from the status of luxury items to necessary tools for accomplishing tasks that were extremely time sensitive. An application by a traveller who intends to travel within 72 hours has to be processed on time, each and every time. The new application process introduced a sense of urgency and responsibility all around. Further, the complete automation and computerization of e-visas provides a wealth of statistics and data analysis, which can quickly detect the bottlenecks and errors, which in turn affords efficient identification of problems and implementation of solutions.

During implementation and the subsequent three years of the e-visa system being up and running, several of the initial plans and assumptions had to be revisited. For example, the addition of more flavours of visas, i.e. business visas, long-term visas, student visas, official visas, have not been as straightforward as initially assumed. The need (and difficulty) to change legislation has been one of the stumbling blocks. Another planned step that has been put on back burner has been to accept and honour e-visa at land border crossings. This has been delayed due to lack of reliable Internet connections in remote and other border crossing points. It was also assumed that within three years of its introduction, e-visas would account for more than 50% of the visas issued; this has not been achieved, in part as a result of the previous items.

After implementation

The e-visa application process did not require the creation of any special infrastructure. It simply brought together into one system the three main actors of the visa issuance process: the MFA, the Ministry of National Security, and the border guards – with the MFA acting as a main router of information. Because knowledge development was particularly important for the role of border guards, following implementation they had acquired a better understanding of the use information technologies in general and the e-visa system in particular.

Solving the initially identified problem of low access to Armenian authorities for visa requests, barriers were lifted and the flows of visitors to Armenia rose considerably. To continue this trend, the issue of diversifying the visa types issued online must be addressed. The current e-visa is limited to one-entry and a 21-day stay. Applications for visitors needing a multiple entry or longer period visa must pass through a consulate. Technically the system can process other types of visas, however, legislative intervention is needed to increase the e-visa spectrum. To increase tourist visas from 21 to 30 days requires a legislative decision by the National Assembly. A decision in the same vein must be undertaken to allow for a category of student visas.

Evidence of the project's success is primarily demonstrated by the number of applications received and processed. It is anticipated that 10,000 e-visas will be issued during 2005, a 50% increase over 2004, and a rate that is expected to continue with projections of 20,000 e-visas for 2006. Monitoring the number of complaints and diffi-

culties and responding to user needs also provides feedback on how well the system is functioning.

Lessons learned

e-Governance framework

The overall lesson learned, that we would offer to those embarking upon e-Governance projects, is the importance of beginning with small size challenges and sub-components of a larger idea and work upwards. This approach enables the implementers to make incremental changes, fine-tuning the different processes according to reality on the ground, while working within the context of an overall framework.

By way of this example, e-visa is one component of a much larger initiative called the Virtual Consulate Initiative, which is meant to provide as many consular services online as possible. A range of different consular services are being made available online – including e-visa. During this project, we have identified over a dozen services, such as issuing re-entry permits to those (Armenian nationals) who are travelling abroad and have lost their passports, renewing passports, birth, death and marriage certificates, etc.

Selecting an appropriate platform

Questions of funding, available resources and skill levels all impact on the choice of technical platform for the project. The e-visa system developed in Windows had to interface with the existing non-Windows systems in place at various government agencies. The project was built upon the Windows operating system, Internet Information Server II, FoxPro as the database engine, FoxWEB as the CGI programming platform. The key objectives informing the technical choices were to make the process completely paperless, to use limited financial resources in a productive manner, and to be able to quickly train public personnel who would be implementing and using the system.

Political will and sustainability

Although there are legislative hurdles, there has been ample political will to-date, resulting in a process that functions well across different government bodies. Building on the success to-date will eventually require changes to legislation allowing for new types of visas. Given the overarching e-Governance programme that has been embarked upon, this will likely be an administrative and logistical detail rather than a political issue.

Sustainability is not an issue for the e-visa programme. The direct and indirect cost of issuing an e-visa is less than 15 USD, which is incorporated into the e-visa fee collected from the applicant and is certainly cheaper than the cost of processing conventional visas.

SAUDI ARABIA

Overview

The Kingdom of Saudi Arabia harbours the holy sites of Makkah, the birthplace of the prophet Mohammed and Islam's holiest city, and Madinah. For the world's nearly one billion Muslims, the ritual pilgrimage to the holy city of Makkah, the Hajj, constitutes one of the five duties of Islam, the Five Pillars of Faith. The Hajj takes place once a year during the last month of the Islamic Moon Year. The Umrah is a visit to the Holy city of Makkah to perform certain rituals at any time of the year.

The Kingdom of Saudi Arabia plays an important role as host to travellers who come to perform a ritual pilgrimage to the holy city of Makkah, and to visit Madinah and other sites of religious significance throughout the Kingdom. Issuing visas and provisioning facilities to these travellers is the responsibility of the Saudi Arabian government's Ministry of Hajj. The task for the government body regulating the pilgrimage activities in the Kingdom is huge – the Ministry manages an average of five to six million Muslim visitors performing Hajj (2.2 million within one month) and Umrah each year.

As noted on the Saudi Arabian information website <www.saudinf.com>, "Conscious of the commitment of the Government of the Guardian of the Holy Mosques to provide every assistance and convenience for the pilgrims on Hajj, the Ministry of Hajj spared no effort to ensure that the Kingdom is able to offer the best services to all pilgrims to God's Sanctuary, from the moment of their arrival in, until their departure from, the Holy Lands." A desire to better serve the large, and growing, number of annual pilgrims led the Ministry of Hajj to initiate a plan to improve services to visitors by implementing new services infrastructure.

Derived from the vision of HE Iyad Madani, Minister of Culture and Information (former Minister of Hajj), who initiated the new project, it was designed as an e-government solution that could benefit Muslims worldwide by enabling seamless information-sharing between government agencies and the vendors that provide accommodations and other travel services to pilgrims. The Ministry of Hajj portal is not yet open to the public, and thus pilgrims and travellers access the information resources via approved intermediaries such as travel agents.

Hewlett-Packard (HP) created a portal-based e-government solution to facilitate details for the Umrah performer. State of the art communication tools were adopted

for the network, which continuously connects the concerned governmental departments. Visa procedures can be completed in seconds, and the Umrah performers can be offered complete information regarding accommodation and transportation – linking them from wherever they are in the world with service companies and agents.

Major benefits

The key targets for the portal solution were to address the complex logistics of a growing number of visitors to Saudi Arabia, and especially to negotiate the volume of applications and needs during peak times of year. The portal has been flourishing, allowing for a 35 percent increase in the number of pilgrims to Saudi Arabia during the first year alone. The following are the key benefits of the portal:

- Visa approvals, which previously could take up to six weeks, can now be completed in two days;
- The Ministry of Hajj can bring new service providers on board to serve visitors more effectively and efficiently, while ensuring and monitoring quality of service levels;
- Travel wholesalers can make data about pilgrims available online to licensed travel agencies, ensuring that visitors get high-level services;
- Improvements in hospitality services allow more Muslims to fulfil religious commitments quickly and easily.

Because the portal is designed to address the entire range of visitors' needs – from obtaining visas and plane tickets, to the accommodations and services visitors will need during their stay – the project comprises a range of different. The main parties involved included:

- Ministry of Hajj;
- Ministry of Foreign Affairs;
- Ministry of Interior;
- Umrah Operators (UO) and Umrah Application Service Providers (UASP);
- External Agents (EA), such as authorised travel agents around the world; and
- Multiple service providers (both local and abroad), such as travel agents, airlines, hotels, and other local service providers.

The main objectives of the Ministry of Hajj portal are to:

- Develop a Portal to serve the Muslim community, service providers and government entities;
- Assist members of the Muslim community worldwide, interested in performing Hajj and/or Umrah, by providing access to necessary services and information;
- Provide an authentic source of information concerning the Islamic faith and the

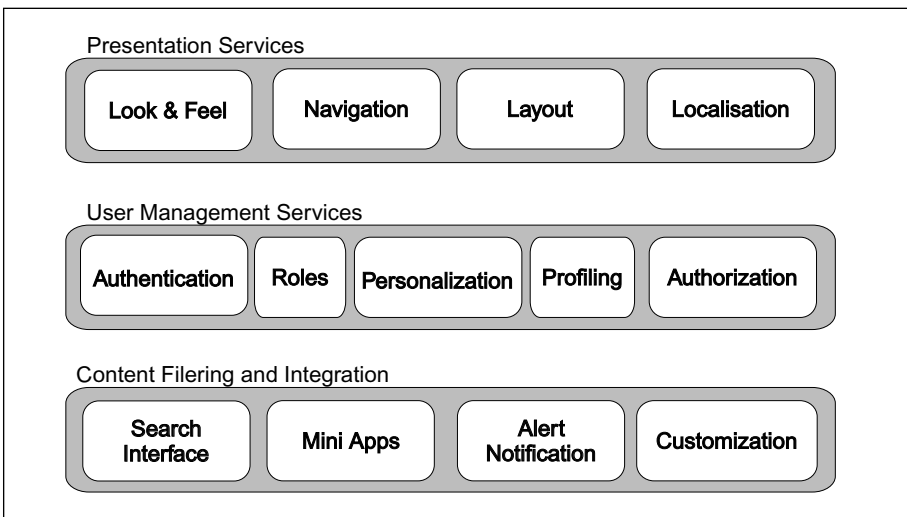
Hajj and Umrah rituals;

- Provide the Muslim community, service providers and government entities with a means for effecting business transactions, and offering a unified and always available access point for information;
- Serve Ministry of Hajj employees, M2E (Ministry-to-Employees);
- Serve business owners (UASP, UO, EA, service providers), M2B (Ministry-to-Business);
- Serve government organisations, M2G (Ministry-to-Government)
- Provide unified access to information across various back-end information systems, such as ERP, data warehouse and CRM systems, and pilgrim databases
- Serve the community, including services for pilgrims, Muslims and non-Muslims, M2C (Ministry-to-Consumer)

Prior to implementation

The portal project was designed by the Ministry of Hajj in cooperation with the private sector, drawing upon the experience of international companies specialised in the field. Sejel Technology, a consortium of local companies, was founded to oversee development and operation of the new infrastructure, and also to assume responsibility for managing the visa process to pilgrims and Mutamers on behalf of the Ministry of Hajj.

Figure 1 - HP's Ministry of Hajj Portal Platform Components



As a first step, Sejel evaluated business integration companies to identify one whose product and service portfolio could address the requirements of the project – in particular, the need for business process management and portal technology. Sejel chose HP as the prime system integrator, TIBCO and ORACLE for the portal software provision, business process management and databases because of their breadth and depth of experience to support Sejel's short-term and long-term IT objectives.

The issues and problems identified as needing to be targeted by the HP portal solution, are summarised as follows:

- Lengthy visa procedures – Umrah visa applications had to be processed manually via a number of agents and government offices, taking up to six weeks during the peak season. With the number of Mutamer growing to one million for the month of Ramadan, manual processing of this volume of visa applications became impossible;
- No electronic platform to serve the many audiences – including government employees from the Ministry of Hajj and other implicated Ministries (such as the Ministry of Foreign Affairs and Ministry of Interior), service providers, travellers, etc.;
- Lack of an integrated communication platform for the Multiple Service Providers (both local and from abroad) – including travel agents, airlines, hotels, and other local service providers;

Figure 2 - Arabic Umrah e-Visa service



- Lack of adequate and timely information regarding incoming pilgrims and Mutamers to prepare sufficient levels of services;
- No central access to rules and regulations for pilgrims to reference when signing contracts with the operators;
- No electronic authorisation opportunities for Umrah service providers;
- No additional services coordination – such as extending visas, arrangements for visiting other cities in the Kingdom, etc.

During implementation

Over the course of nine months, HP implemented the entire e-government portal solution including the underlying business processes, and the B2B integration software. Previously, local vendors serving pilgrims did not have advance information about how many people were scheduled to arrive on a given day or which services and accommodations they had requested. B2B integration makes available up-to-date information on arriving pilgrims to licensed UASPs and UOs. Travel agencies can access information about travel packages, including accommodations, transportation, and other travel details. Using these information resources, they can select the appropriate package for each pilgrim, resulting in higher quality and more efficient servicing of pilgrim needs.

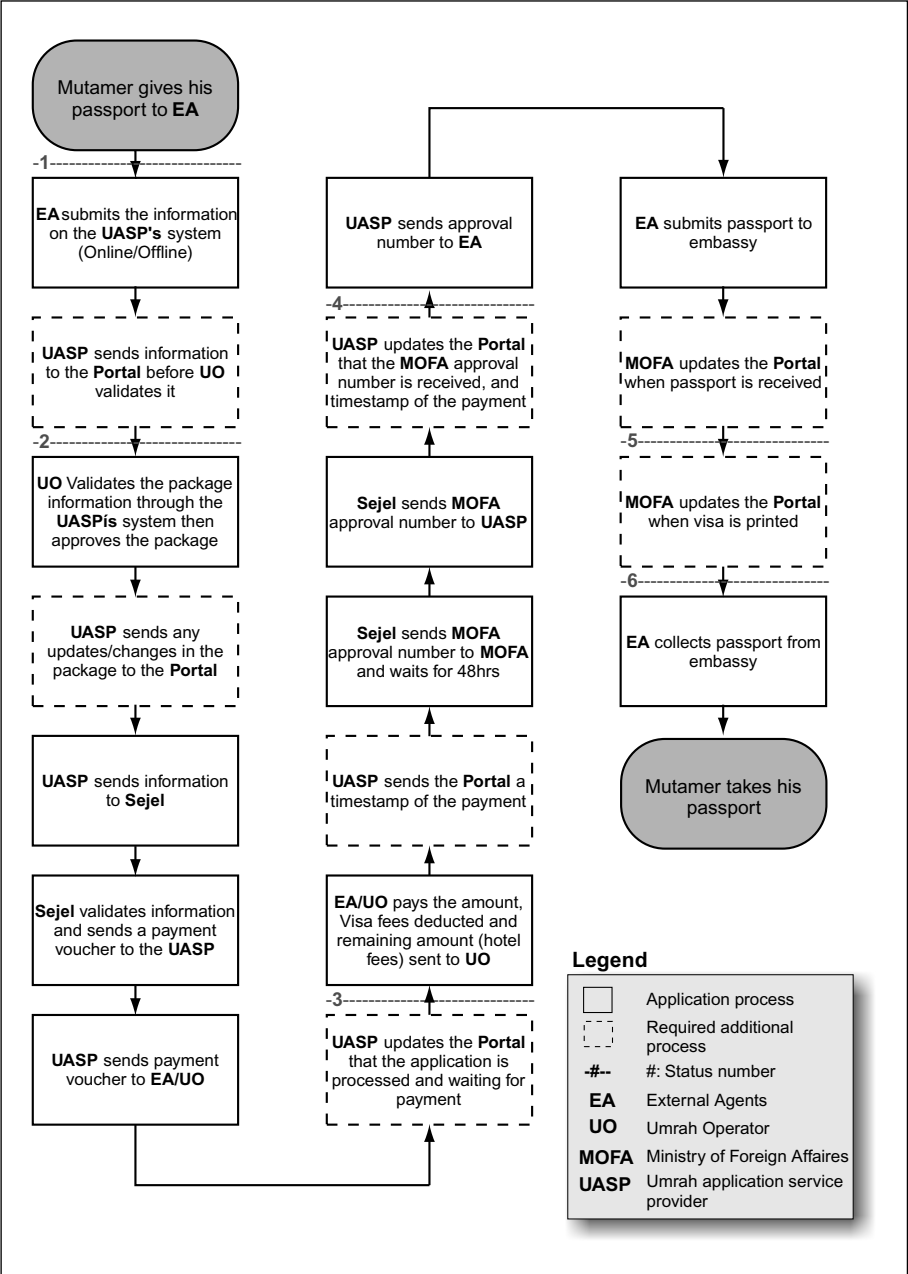
Because of its high national visibility and significance to Muslims around the globe, when the project went live, it was inaugurated by the Custodian of the two Holy Mosques, King Abdullah Ben Abdul Aziz Al Saud, (then HRH, Crown Prince). In written remarks, he expressed his pleasure over the inauguration of this developed information network of the Ministry of Hajj, identifying the network as a pioneering step in the history of the Ministry for the use of information technology to provide the best services to pilgrims and Umrah performers.

Key features of the portal include:

- HP integrated TIBCO's business process management software and ORACLE RDBMS speeds up processes for visas and local businesses applying to provide services to pilgrims;
- HP's business-to-business (B2B) integration makes real-time information about pilgrims available to government agencies and travel wholesalers;
- HP's portal software supports the intranet that travel agencies and tour operators use to access pilgrim information.

Figure 3 details the Umrah visa application process with the various integrated tracking points, as well as the additional processes needed to implement this service. While the e-visa application is not yet available to the public, individuals managing this and other aspects of their own travel planning will be a central feature in the next steps of the portal's evolution.

Figure 3 - Umrah visa application process



After implementation

The portal solution has opened the doors even wider for Umrah performers and visitors to Saudi Arabia, with no limits on the number of Umrah performers, or other visitors during the year. The Hajj Minister has emphasised the portal's role in facilitating pilgrimage arrangements from anywhere in the world, and providing reliable and authentic information about pilgrimage procedures. As well, the portal's launch comes at a time when the new Umrah system has been approved with the main goal of saving time on registration procedures.

One of the most immediate benefits of the project has been a considerable increase in the speed and efficiency with which visas are issued to pilgrims who plan to visit Saudi Arabia. Using TIBCO's business process management software, Sejel Technology and HP have integrated different government information and processing systems with those at consulates and at the Ministry of Hajj, resulting in a visa application and approval process which now takes a mere four to eight hours.

The same processes are also enhancing the level of services that pilgrims receive. The Ministry of Hajj maintains and monitors a list of approved vendors, to ensure that quality of vendor services is accurately rated. For example, the Ministry makes certain that only 4-star hotels receive a 4-star rating. New hotels, tour bus operators, restaurants, and other providers are routinely added to the list – but only after the Ministry ensures that these companies meet the required standards. The HP created system automates the vendor-approval process so that additional providers can begin serving travellers more quickly. The portal also provides information helping to ensure that pilgrims are aware of their rights vis-à-vis of Umrah companies. When Umrah operators have promised services they are unable to provide, the website can also help pilgrims claim their rights.

The number of pilgrims visiting the Kingdom has increased by 35 percent since the Ministry of Hajj implemented this component of the e-government solution. The portal solution allows Muslims to buy a complete Umrah package, pay for it, and get the visa from the nearest Saudi mission within 48 hours. An estimated 10 million pilgrims are expected to complete the pilgrimage in the next five years. It is not unlikely that potential visitors had easier access to information and travel planning resources, but also because they know that the service levels have increased significantly. The next step for HP and the Ministry of Hajj will be an extension of the portal to serve pilgrims directly. Instead of making travel plans through a licensed travel agency, as is currently required, the portal will provide even greater flexibility and convenience by allowing visitors to apply for visas online and book their own travel plans, again, potentially increasing revenue for Saudi Arabian airlines, hotels, and other companies. The new portal is expected to serve nearly one billion Muslims around the world.

Lessons learned

Public private partnerships

Strong public private partnerships and coordination were critical for different aspects of this project. Migrating processes to an online platform means that services can be provided more widely and more effectively. In this instance, there is a mix of government and private sector applications and requests for services that are being processed. In the early stages, business expertise was essential for planning the integration of the different processes. The Hajj Minister identified the network as a perfect example of “how to have a creative partnership with the private sector, how to bridge the digital divide and adapt state-of-the-art technology to local needs, and how to reverse the direction of capital spending and bring it back home.”

With the services sector component of the portal and corresponding transactions, coordination of information security and reliability had to be ensured for all companies and government sectors relying upon the portal. The private sector partners were able to provide the required and trusted level of expertise to work across these intersecting systems. Dr. Muhammad Saleh Benteen (Saudi Post CEO and President, former Deputy Minister of Hajj, Umrah Affairs), has noted that there are more than 200 local Hajj and Umrah operators with more than 3,500 external agents in some 160 countries around the world. Dr. Benteen pointed out in his inauguration speech that the information network of Hajj and Umrah has become one of the biggest enterprises in the world, spanning more than 160 countries.

Political will

The political will supporting the portal development was clearly a key strength. A principal function of the Ministry of Hajj is to facilitate pilgrimage to the Saudi Arabian holy sites. “Assisting pilgrims is key, and the Ministry of Hajj saw an opportunity to enhance the level of service to pilgrims by providing all relevant travel information online in real time,” says Ahmed Ghamri, CEO of Sejel.

Broader e-government initiatives

Like political will to support the project, it is also important that such online initiatives fit within an overall framework. This project is considered to be a cornerstone of the e-government initiative by the Custodian of the two Holy Mosques, King Abdullah Bin Abdul Aziz Al Saud, (then HRH, Crown Prince). It integrates the Ministry of Hajj, the Ministry of Interior, and the Ministry of Foreign Affairs to better process visa data and expedite and improve the level of service to pilgrims. As evidenced by plans to make the portal publicly available, this project is part of a more comprehensive network to encourage and facilitate pilgrimages.

BEYOND THE CASES OF ARMENIA AND SAUDI ARABIA:

A proposed model for replication and transfer

As governments embark upon programmes to make their information and services more accessible to all sectors of society, the category of virtual consulate applications take on a particular prominence. The range of services offered by consulates, typically housed within ministries of foreign affairs, tend to be directed to audiences outside of the country: tourists and business persons applying for entry into the country, businesses seeking information about opportunities and conditions; students enquiring about study prospects; nationals abroad needing assistance or a point of contact with the country to register marriages and births; and so forth. And, as evidenced by the range of examples here, consular services must interface with numerous government agencies and departments. The opportunities and benefits of using ICTs to create virtual consulate services and applications are abundant. E-visas are but one of many possible virtual consulate applications.

This chapter is derived from the experience and lessons learned from the establishment of e-visa programmes by the governments of Armenia and Saudi Arabia with the support and collaboration of Hewlett-Packard and UNDP. Both cases demonstrate best practices of collaboration between international organisations, governments and the private sector in the public interest, and in within the framework of UN Millennium Development Goals.

Working within the framework of Millennium Development Goals

MDG Goal 8: Develop a global partnership for development.

Target 18: In cooperation with the private sector make available the benefits of new technologies, specifically information and communications.

Whereas the case studies described in this publication are country-specific, in this final chapter we present some key concepts that are less tied to specific country circumstances, and hence are potentially applicable within any country starting up an e-visa programme. Our findings certainly will not respond to all questions that may be raised, but

we hope to provide a starting point, and to address key questions for those wanting to follow the success of Armenia and Saudi Arabia.

Prior to implementation

Once a particular e-administration project – such as e-visa – has been identified as a useful, the initial steps to begin to consolidate and create support for the project include:

- Lobbying the concept;
- Identifying the objectives;
- Identifying project partners and key stakeholders;
- Identifying technical platforms and resources;
- Addressing financial issues and benefits.

These elements comprise the foundations of the project and should be formulated in general and easily communicable terms.

Lobbying the concept

First and foremost, it is important to stress that all e-governance projects must begin with political will. A policy decision to implement e-governance within an administration is the first step, of course, but is no guarantee that resistance will be avoided at the departmental levels. Thus, project champions – the people who understand and can communicate the benefits of particular e-administration projects must also be identified.

The manner in which routine tasks are accomplished can engender monopolies of knowledge. Changes to these processes can be understood as threatening established hierarchies and routines. People working within the administration will need a clear understanding of how the new processes will work, and how their own jobs will be affected. Most importantly, the benefits of e-administration projects must be communicated widely – both across the different departments that will administer the new process, and to the community of stakeholders.

When effecting an inventory of all of the different steps in the process, it will become apparent that there is a large number of different departments that are concerned with who is allowed entry into the country. Some of these stakeholders will have legislative requirements to uphold – all of them are mandated with protection of the country from harmful elements, and promotion of national interest. Providing an e-visa function will make travel to the country easier for tourism, business, and study, all of which are economically important sectors. Lobbying for the new e-administration processes will also need to affirm the respect for the function of the different points in the existing process.

Developing the concept

There will be different reasons for embarking upon an e-visa programme: stimulating tourism, coordinating and facilitating existing traffic to the country, compensating for lack of consulates and embassies, encouraging business travel, and so forth. Conversely, there may be concerns such as trafficking, economic migration and terrorism to which certain nations may be vulnerable. Particular national priorities will need to be identified so that they can be facilitated by the system that is ultimately designed – both in terms of stages to test the system and the ultimate manifestation.

Platform logistics

For particular projects – such as e-visa applications – the hardware and software choices will usually be a follow through from higher, overall level e-governance decisions. If the overall plan is to build e-governance solutions on open source software, then that decision will carry through to the particular e-administration applications. However, for security of information and transactions, there needs to be concerted effort and design to respect all stakeholders, including the government agencies, applicants for e-visas, and private sector agents who have been engaged in the process.

Financial issues

E-governance projects are undertaken because of anticipations that they will more effectively and efficiently serve the public. This does not necessarily mean that they will cost less than traditional means of serving the public. Implementing e-visa processes is somewhat of an anomaly because it is a public service for which costs can over time be recovered by application fees, as the result of more efficient processing. That said, there is an initial outlay of infrastructure costs that need to be assumed. Infrastructure costs need to be detailed and encompass design of processes, external experts, installation of new hardware and software, training and promotion of the new facilities.

During implementation

There are fundamental elements of the implementation process, which will be contingent upon national conditions and planning strategies. These elements centre around four key areas:

Process formulation and re-engineering

- government process analysis;
- design of the e-visa mechanism;
- legalisation of the e-visa system;

Technical elements and architecture

- development of software;
- technical specifications for procurement;
- procurement of equipment & connectivity;

A model for replication and transfer

User level considerations

- training;
- reviewing and adjusting internal rules and procedures;
- advertising and promotion.

Project monitoring and evaluation

- setting benchmarks, success criteria and indicators to be collected;
- establish monitoring processes.

Formalisation of the business process

As evidenced by the two case studies in this booklet, the formalisation of the business project is complex. Armenia presents a more straightforward example, but nonetheless must traverse five different ministries and the offices of the international airport and border guards. The process for Saudi Arabia, with a more complex mandate, covers different ministries in addition to a range of private sector representatives – both at national and international levels.

There is no *one size fits all* e-visa programme. Different countries aspire to meet different needs and agendas. Accordingly, the business plan must respond to and be negotiated by the different stakeholders. For the Saudi Arabia case, for example, there was the explicit intention to engage private sector service providers. The business plan must identify and respond to the anticipated benefits: faster processing, more secure information processing, a paperless system, cheaper and more pervasive provisioning of public sector services, and so forth.

Because of the number of different stakeholders, and the invariable complexity of process design, it can be useful to draw upon outside resources to provide an objective view of the overall business process.

Working with different stakeholders to determine roles and functions

Migrating existing processes to an online environment must be both forward and backward looking. All of the existing elements of the process must be accounted for and be in place. This means that an inventory of all procedural steps must be brought to bear in the design. However, this is also an opportunity to make processes more efficient and responsive – and new elements can also be worked into the design. In the case of e-visas, it has been possible to dramatically decrease the time of processing, increase access points for visa approval, and for the future, to create new flavours of visas to respond to differentiated reasons for travel to the country.

Procedural steps for each affected department, agency and stakeholder must be identified, and then considered in terms of the overall process.

Legislative considerations

The legislative and legal elements of the e-governance project need to be identified and formalised so that they can be adopted and approved by the legislative body. Further, in some instances, new legislation will be required for processes and services. These should be anticipated so that the programme does not grind to a halt while waiting for them to be addressed.

Technical implementation

The elements of software, hardware and training will need to be detailed in separate plans and will likely rely upon external expertise brought in to design and devise these aspects of the programme. The technology architecture planning document must address elements including:

- The major business requirements;
- Existing technology resources that will need to work in a coordinated fashion;
- Identifying new technology solutions and processes;
- Ensuring the integration of different technology and software platforms across the different ministries and departments;
- Costing of different platform solutions;
- Assessing capacity and training requirements that will be engendered by the selected platform;
- Identifying information and communication processes that can be improved;
- Ensuring the security of the system – across all the different points of access.

Expertise in all of these areas is critical to ensuring the security and effectiveness of the technology design.

Bringing users on board

There are two primary groups of e-visa application users: travellers who avail themselves of the system; and public service workers who administer and maintain the system. Thus promoting the project will need to happen on different levels. As noted in the introduction, political will is a key precondition for the project's success, and in the same vein, individuals within ministries and departments implicated in the new processes also need to understand and support them.

For e-governance programmes there must be education and awareness programmes to promote their use. E-visa, however, clearly has a different audience than the national public, and a concerted strategy to raise awareness of its availability is important. Links from other government websites and information brochures are an obvious starting point. Articles about the project should also be invited, especially if they are in magazines that will reach an international audience.

After implementation

E-administration projects are never really finished. They are embedded in a continual cycle of being improved upon and refined. In part, this is due to the possibilities of new technologies improving upon processes; and in part is the nature of public services, which evolve over time.

Further, as seen in the two case studies described here, e-administration projects are often implemented in phases, allowing for new elements to be added once basic processes are fully functional. Post implementation elements include:

- Monitoring the processes;
- Evaluation of the system;
- Extending the scope of e-visa; and
- Planning for further e-services, ultimately comprising a full-fledged e-consulate.

Monitoring the e-visa programme

Project indicators to assess whether objectives have been met will need to be devised. In simple terms, the number of e-visa applications can be counted. More specifically, it will be useful to monitor quality of service and ease of use, identified by different evidence such as the number of uncompleted e-visas, or online application processes that are subsequently aborted by the user. Traffic to the website (e.g. volume and where users are from), and the number of hits on the e-visa pages will provide some initial feedback that can be measured and assessed over time. Feedback and complaints on the system will be useful for fine-tuning processes and identifying bottlenecks in the system.

Workers in the ministries and affected departments are also *users* of the system, and internal complaints and suggestions should be encouraged. More than just users, they are also the system experts who can be instrumental in process troubleshooting, and identifying failures, need for additional training and so forth.

Evaluation of the system

Post project evaluation can also assess more widespread effects such as better communication and sharing of information resources across ministries and departments, increased human resource capacities, and more efficient provisioning of public services.

Feedback on the cost of the programme is also important to evaluate. It will be useful to have a picture of the cost of maintaining the e-visa programme, and to document the actual cost of providing an e-visa – as compared with traditional visa processes and over time as the project matures.

The number of tourist e-visas issued will provide a picture of the programme's success in reaching its intended audiences. The information collected for the purposes of according visas will also provide useful feedback on the project's reach and success.

Post project evaluation will also provide an opportunity to take stock of lessons learned, so that other countries embarking upon similar programmes can benefit from the experiences of the earlier e-visa programme adopters.

Extending the scope of e-visa and moving towards e-consulates

Many e-administration projects are implemented in stages. An incremental approach has been highlighted as a useful strategy to ensure project success. Once a basic e-visa programme is operational and smoothly functioning, the foundations and know-how are in place for both extending existing processes, and indeed, creating new ones.

For e-visa programmes that begin with a first phase of only provisioning tourist visas for arrivals at major airports, subsequent phases of extending the infrastructure services to land borders can be strategised using the same steps perfected during the original phase. Further, the demonstrated success of the project can be used to lobby for necessary changes to legislation to diversify visa types, and their inclusion in the programme.

Other further reaching consular services can be built into the existing foundations of the programme, especially drawing upon communication and information processes that have been devised and implemented across the different ministries.

Figure 1 - e-Visa implementation steps

