ESCHER GROUP

Digital Government as a Service

White Paper

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Table of Contents

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Executive Summary

Forward-looking governments are increasingly turning to digital technologies to re-imagine the role of the public sector in modern society, deliver greater productivity, and satisfy the expectations of both citizens and the business sector.

While the term eGovernment includes a spectrum of public sector activities, the rise of the Digital Government as a Service model deserves examination as a mechanism to harmonize disconnected government agencies and establish more meaningful citizen engagement.

Digital Government as a Service is an extension of the Software as a Service model (SaaS) where products and services are offered to users as a Web-based service. For citizens and businesses, it allows their government to engage with them - on their phone, tablet, or PC at their time and convenience.

Governments have three major responsibilities in paving the way for universal digitisation — overseeing regulation, investing in digital foundations, and encouraging usage

strategy&

The success of Digital Government as a Service depends on its ability to offer a portfolio of eServices, so well designed, useful, and convenient, that citizens feel compelled to use them. In addition, it enables governments to capitalize on mobile technologies, identity management, and social media to become a catalyst for positive change in society.

Today, citizens use secure, responsive, personalized services from banks and retailers, and expect the same from governments - safe, accurate services on the devices of their choice from any location. And while it's now accepted that governments must offer eServices to satisfy these expectations, the path to large-scale eService delivery poses many challenges.

This creates a dilemma for government. While eServices have the potential to modernize archaic internal processes, streamline inefficiencies, and reduce costs, the scale of under-taking complex interlocking tasks overwhelms most agencies.

Nonetheless, they must press ahead. Pressures to adopt standards, automate transactions, and demonstrate transparency in social media, are essential to extending its digital footprint both nationally and internationally.

For government CIOs, converting expensive, time-consuming manual processes into sophisticated online transactions that work on PCs, smart phones and tablets has become a modern-day Gordian knot - but the rewards are immense.

- GOV.UK estimates that moving offline transactions services to digital channels could save approximately GBP1.8 / US$2.7 billion a year. [1]
- The City of Copenhagen estimates that digital transactions cost less than 5% than the equivalent face-to-face interaction.[2]

In this white paper, we look at how government, citizen, and partners can fast-track the development, adoption, and usage of Digital Government as a Service – as well as 'sun-setting' redundant processes. We explore how this model with public-private partnerships can reduce bottlenecks, accelerate the rollout of high-value eServices, while protecting agencies from financial exposure.

For progressive governments, Digital Government as a Service is the conduit to increase citizen engagement, reduce transaction costs, and develop a competitive knowledge economy that attracts foreign investment and sustains growth.

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Introduction

Potential versus reality. For many governments, the effort to deliver online services effectively is frustrating and encouraging in equal measure.

While governments want to connect the dots digitally, implementing strategic plans presents a series of financial, political, and cultural hurdles. Nonetheless, governments understand the need to take action or get left behind in the digital dust. Many have made great strides, but others are stuck in half-way houses, unable to replace paper-based processes with omni-channel eServices.

The average cost of a digital transaction is almost 20 times lower than the cost of a telephone transaction.

GOV.UK

In this white paper, we look at how Digital Government as a Service can act as 'change agent' revitalizing the public sector, freeing up trapped resources, to bridge the gap between antiquated processes and efficient digital frameworks.

This UN report illustrates the importance of providing better eServices[3] to citizens.

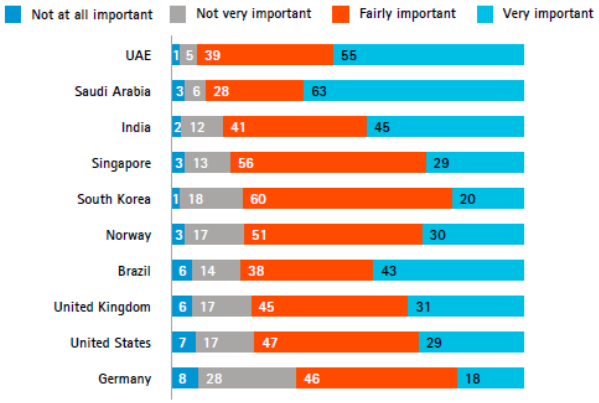

FIGURE 1: IMPORTANCE OF DIGITAL GOVERNMENT IN THE FUTURE

To put this in context, let's look at how this approach could affect the following:

- **Government** – CIOs are overwhelmed. Efforts to rollout 'digital by default' initiatives, mandate digital services, and switch from paper-based processes to eServices optimized for PCs, phones, and tablets is very difficult. Tom Loosemore, deputy director of Government Digital Services in the UK, says the biggest obstacle is "*the existing process for how things happen*[4]."
- **Citizens** – expectations have changed. eGovernment shortcomings are most pronounced when performing online transactions, for example, applying for licenses. While some transactions are fully online, others make you find, print out, and post back forms. A lot of work to get a license! By contrast, their smart phones have banking apps to pay bills, update credit cards, and transfer funds.
- **Private Sector Partners** – can provide the skills to synchronize disconnected agencies, and accelerate key enablers, such as identify management. Case studies of public-private partnerships serve as a positive reminder that eServices implementations can be delivered and scaled successfully.
- **Inward Investment** – as countries compete to position themselves, low international rankings reflect poorly on national brands, potentially losing investment opportunities.

In the following sections, we examine the Digital Government as a Service concept, with examples and case studies to illustrate how it works.

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Digital Government as a Service

To understand how governments can benefit from Digital Government as a Service, it's important to understand what it really is and how it relates to other key enabling technologies, such as identity management.

At its simplest level, it coordinates the delivery of eServices, allowing governments to choose where, when, and how they create, launch, and enhance different services. Using this model:

- eServices (government services) are accessed over the web
- eServices are managed from a central location
- Government IT department don't manage the infrastructure, security, upgrades or patches. The private sector partner is responsible for this.
- Application Programming Interfaces (APIs) allow different eServices to share information either internally across departments or externally with third parties.

What is Digital Government as a Service?

Colorado's eGovernment Advisory Board reports that 80% of all services are provided at no cost using the public-private partnership.

Going digital isn't a simple 'lift and shift'. Government needs to weigh the time, cost, and priority of services before moving to the cloud.

While the business case for switching to eServices appears attractive, governments are understandably cautious, mindful of balancing the books and avoiding public criticism if projects fail to deliver. Digital Government as a Service resolves this for governments by eliminating financial risks and avoiding the need for up-front capital investment.

There are two basic components to this model:

1. The government doesn't have to pay any capital investment, labor costs, maintenance or other expenses.
2. The private sector partner provides services at a minimal cost to the government, adding a nominal fee to a select number of transactions to cover their cost to build, manage, and enhance the eServices.

By using Digital Government as a Service:

- Citizen services are usually low-cost or free, for example, registering for services.
- Some business services include a 'convenience' fee, usually on high-priority business services, to perform transactions online, thereby saving time, money, and resources compared to faxing, posting, or visiting in person.

These fees cover the cost of paying the private sector partner for the initial investment as well as ongoing maintenance, upgrades and development.

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Benefits to Government

For government, other benefits of using Digital Government as a Service include:

- Fast-tracking eServices to improve the payment collection process.
- Enhancing eServices in line with technical changes at no additional cost.
- Reducing manual processing errors, operating costs due to automate processing, and reassigning staff to more effective areas.

Benefits to Citizens and the Business Sector

For citizens and the business sector, a broader range of eServices offers:

- Convenience of using the web, tablets, and mobile devices.
- 24 x 7 access from any location and device.
- Faster service delivery.

Benefits to Private Sector Partners

For private sector partners, it offers regular payment for eServices, coupled with the ability to help their government partner streamline processes, realize efficiency gains, and increase productivity.

Private Sector Partner Motivation

The *Self-Funded State E-Government Programs* report suggests that private sector eService partners have greater motivation to deliver superior eServices than fixed-price contract vendors do. While both seek to improve profits, the private sector eService partner's approach compliments the agency's goals as outlined below.

Area	Fixed Price Vendor	Private Sector eServices Partner
Usage Rates	Lacks incentive to improve services within current contract agreement	Motivated to increase user adoption, improve engagement, and shift from offline processes
Revenue	Demonstrates that government needs additional services	Delivers eServices efficiently to generate potential income
User Experience	Seeks additional compensation for items not explicit in the contract	eServices improved by analyzing data, feedback, and user behavior
User Adoption	Largely indifferent about adoption	Incentive to encourage eServices usage
Mobile	Unlikely to improve without cost increases	Invests to support customer expectations
Technology Reuse	Lacks motivation to reduce cost savings	Motivated to reuse existing technology wherever possible. Income is derived by results

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Can Digital Government as a Service make a difference?

Digital transactions are 20x cheaper than phone, 30x cheaper than post, 50x cheaper than face to face.

The Economist, "Efficiency by Transparency"

'Do more with less' is the mantra in many government circles. Increases in efficiency are critical with budget cuts, restrictions, and rationalizations.

Can Digital Government as a Service, with its portfolio of eServices, really reform labyrinthine institutional obstacles, bureaucratic obstructions, and technical deficiencies?

Why some eServices are more equal than others

Before we start, we need to define eServices in the context of eGovernment.

An eService allows you to perform a government service using your PC, tablet or mobile phone.

In general, an eService involves transactions, for example, applying for permits or paying bills. Some eServices are for information purposes, such as real-time travel and weather updates. In this document, we're mainly interested in government transactions.

To address emerging challenges, the *UN eGovernment 2014 Report* highlights that the "eGovernment maturity model" no longer holds as eGovernment goals are constantly evolving to meet emerging challenges and increase public value.

It highlights that "emphasis is now being placed on ***deploying a portfolio of e-services that spans functions, business units and geographies***, at varying local or municipal levels, thus increasing the value of service offerings to citizens by effectively adopting disruptive technologies in an adaptive and scalable manner."

The Four Stages of eService Development

Some eServices are more 'e' than others.

What this means is that many services are still performed mostly offline, others are a hybrid (for example, downloading a PDF, then posting it in), and a few are end-to-end, fully online. As the electronic aspect varies, quantifying the cost savings when moving offline services online can be difficult.

To expand on this, the *United Nations Department of Economic and Social Affairs*[5] identified four stages of online service development for eGovernment services**:**

Stage 1 – Emerging information services: Static websites that provide information on public policy, laws, regulations, and government services.

Stage 2 – Enhanced information services: One- or two-way communication with citizens. Citizens can download PDF forms to be emailed or posted.

Stage 3 – Transactional services: Two-way communications. Authentication required to complete services, such as applying for licenses and permits.

Stage 4 – Connected services: Shift from **government-centric to citizen-centric approach.** eServices are targeted to citizens through life cycle events and segmented groups to provide tailor-made services. Citizens are more involved with government activities to have a voice in decision-making.

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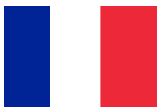
eServices in Action



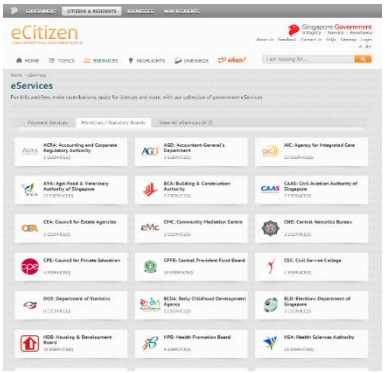
Case 1 - France

Service-Public.fr, the official website of the national administration[6] directs individuals, businesses and associations to relevant services, using Single Sign-On (SSO) to increase user adoption and improve customer experience.

France scores high on international egovernment rankings indices due to its commitment to continuous improvement, integration and consultation with citizens on service delivery methods.

The Mon.service-public.fr site enables 2.5m users interact online. 80k French taxpayers filed taxes using their mobile phone in 2012. It foresees that 80% of admin tasks will be available online, including requesting housing assistance or paying public bills.

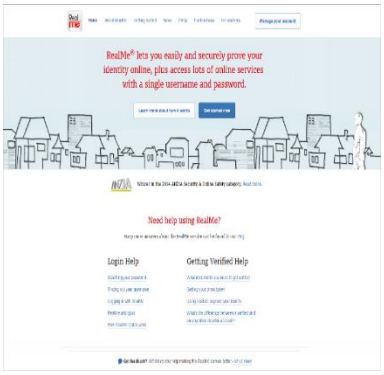
Case 2 – Singapore



The Singapore eCitizen site[7] acts as a gateway to more than 600 eServices. From here, citizens pay bills and fees, make contributions, and apply for licences. Its success is partly due to SingPass, which provides a common online password mechanism to access eServices.

63 government agencies use SingPass to authenticate citizens and residents. Since its launch, authentication transactions have increased from 4.5m in 2003 to 51m in 2012, a ten-fold increase in usage over nine years. The Tax Filing system saves SGD 20m / USD $14.4m per year compared to the offline process.

Case 3 – New Zealand



New Zealand's government aims to have all new services offered online by 2017[8]. Measures to protect personal information include security and privacy principles, with clear accountabilities through to executive levels and regular audits.

The RealMe[9] service uses identity management software to match records in its database to the assured identity provided by the authenticated user. It embraces 'privacy by design' principles and allows users to log in to many services, without having to remember different logins.

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From the eCitizen's perspective

'Government has to fit the rhythm of life of the people.'

Jean-François Copé, Minister – Budget and Administrative Reform, France

For citizens, the attraction to use eServices includes cost- and time-savings, efficiency, convenience, and mobility.

Martha Lane Fox[10], the former UK Digital Champion, recommends that, "To take advantage of these changes, government needs to move to a 'service culture', putting the needs of citizens ahead of those of departments - designed to suit the needs of citizens first." Examples of where this is achieved include:

- **Document Discovery** – well-designed websites help citizens search, find, and complete forms online, thereby reducing agency workload.
- **Transaction services** – the ability to complete transactions fully online without the cost and inconvenience of having to print, post, travel, queue, and visit government offices. Also, the ability to partially complete a transaction - saves the data as you enter it - and return to it later is very helpful.
- **Digital identity** – once registered and authenticated, single sign on (SSO) allows user to move between services without having to remember multiple passwords.
- **Mobility** – have fast-tracked app development and responsive web sites offering personalized, location-based services, and automated notifications.
- **Privacy** – citizens expect government to guard their personal digital information with even greater diligence than commercial sites.
- **Time Savings** – completing transactions offline is frustrating, time-consuming and expensive for time-poor citizens due to difficulty in finding forms, visits to physical locations with additional printing, postage, and travel costs.

The *European Union, Digital Agenda Scoreboard 2014* highlights that once citizens start to use online public services:

- 75% find the experience highly satisfying.
- 87% appreciated the usefulness of information.
- 84% ease of finding information.
- 79% ease of using online services.
- 75% transparency/follow-up.

Accenture's survey of 5,000 people across the 10 countries confirms citizens' preferences to use digital channels:

- 80% would like to communicate with government via social media and on their mobiles.
- 81% would like their government to provide more services through digital channels.
- 64% would like to use social media to engage with government.

For citizens, the private sector has raised the bar in terms of product offerings, interaction, and innovation. The same quality of service is now expected from government.

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From the Government's perspective

In Dubai, USD$1.7 billion was collected from 3,322,278 transactions on the ePay portal in 2012.

Governments face two conflicting objectives: provide better services to citizens, but contain the costs of providing the services.

For government CIOs, budget restrictions, technical constraints, and the appetite to change are only some of the impediments that disallow them from refining its digital service offerings.

However, governments need to act fast, be nimble, or risk losing their competitive edge as citizens question value-for-money on pilot projects and express dissatisfaction with poor user experiences on social media channels, especially when eServices fare poorly when compared with slick, responsive commercial services.

In its *Digitizing public sector services*[11] document, the Norwegian eGovernment Program identifies four objectives to modernize the public sector:

1. Be accessible online to the extent possible.
2. Web-based services to be the default mechanism for communications with citizens and businesses.
3. A digital public sector is to result in improved services.
4. Digitize processes to free up resources.

Tim O'Reilly: "You standardize railways by building tracks … data is the 21st century railway."

The fourth point reminds us that while it's tempting to calculate the reward of digital transformation in monetary terms only, the modernizing of the public sector has a cascade effect right down to the grass roots. Employees feel empowered, citizens more engaged, and partners more involved.

Accenture recommend that instead of pursuing piecemeal attempts to improve efficiency, "governments need to… prioritize and manage initiatives better. They must also take steps to eliminate service delivery duplications and make use of the public sector's considerable scale and assets." It adds that, "Digitization is also likely to *reduce the risk of failed transactions*, and therefore the business cost of having to go through the same process multiple times."[12]

For governments, the roll-out, enhancement, and maintenance of eServices promises gains in several areas, as highlighted in the checklists to evaluate the UAE Economic Case For E-Government[13]:

- **Efficiency savings** - reduced processing through common standards for data and processes; reductions in errors, re-work, complaints.
- **Information benefits** - more accurate, cleaner, and reliable information; capacity for greater information sharing and data analytics.
- **Risk benefits** – improved risk management, security, less security breaches.
- **Cost controls** – reduced costs for future projects through shared infrastructure, services, and resources.
- **Resource efficiency** - more effective use of existing infrastructure and reduced wastage.

This begs the question: do successful eServices projects share common attributes?

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Migrating public services online is the government's best tool to boost usage because it gives people a compelling reason to use the Internet

strategy&

To varying degrees, effective government digital transformations include:

- **Digital Government as a Service** – using this business model, private-sector partners pay the development and maintenance costs to develop eServices, then receive a nominal service fee on high-volume transactions. This cost containment means agencies can fast-track eServices faster, examine feedback, iron out issues, and ensure better customer satisfaction.
- **Omni-channel strategies** – for citizens, omni-channel services mean they can start, stop, and continue interactions with government services across different devices when it suits them.
- **Smart Forms** – the transformation of paper documents to digital means 'write once, use many' for citizens. Digital data can be structured, indexed, and presented back to user when they need to check, share, or make changes.
- **Identity Management** – allows government to authenticate and authorize citizens, protect their data, and offer secure, personalized services across all federated sites from different devices.

  An additional benefit is that it allows government to establish a Single View of Citizen – a 360 degree view of citizen interactions across all government agencies – thereby reducing costs by avoiding duplication of efforts, synchronizing account management, while enhancing eServices accuracy.

In terms of financial gains, eServices streamline budgeting, forecasting, and fund allocations as financial transaction tasks can be scheduled, automated, and coordinated, for example:

- A wider portfolio of eServices encourages citizens to go 'digital by default' improving usage, thereby ensuring earlier payments and tax returns.
- Reminders can be emailed, texted and tweeted to citizens to encourage prompt payment and to avoid late penalties.
- As online payments are received immediately, funds are available faster for distribution and investment elsewhere.
- Refunds, and partial refunds, are processed faster, reducing time-consuming and expensive investigations, while improving customer satisfaction.

In addition, costs are reduced and controlled more effectively as:

- Self-service means less staff are required in call centers and regional offices.
- Transactions are faster with less waste compared to offline methods.
- Paper processing related costs, such as packaging, materials, ordering, storage, shredding, and disposal are all reduced.
- Duplication of efforts and redundancy are avoided as agencies become more connected, share digital assets, and access information silos.

The combination of financial gains, cost reduction, and process effectiveness make eServices a compelling proposition.

This leads us to the third party - the private section partner - who has the skills, experience, and funds to develop the portfolio of eServices necessary to persuade citizens to move online.

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From the Partner's perspective

Private sector partners can accelerate eServices development, help government capitalize on key enablers such as identity management, and improve their status in international rankings.

In addition, Digital Government as a Service allows public-private partnerships deliver the critical mass of eServices necessary to ensure user adoption, contain costs, and reach strategic milestones as the piecemeal delivery of eServices doesn't motivate citizens to go digital, requiring the support of both offline and online services.

For private sector partners, opportunities exist to develop eServices with government bodies as:

- The success of high-profile public-private partnerships has reduced concerns and anxieties.
- Digital Government as a Service allows private-sector partners to generate income streams from digitized services.

  What is a Digital Government as a Service?

  In this arrangement, the private sector partner does not charge the government fees for developing the eService. Instead, they collect transaction fees, usually from high-volume business applications, to offset the design, development, maintenance costs.
- The adoption of eServices creates an appetite for additional services, for example, 'skip the line' services, subscription services, usually as premium offerings.

Governments are ready to ramp up their eServices portfolio and avoid falling behind. Success stories from countries with small online footprints, such as Singapore, to larger, more complex, digital hydras facing the UK point the way.

However, if the business case for eServices is so compelling, why have so many stagnated, ran aground, and failed to justify their investment? At a broad stroke, the impediments to launching eServices include:

- Getting the critical mass of eServices online so citizens feel compelled to use them, that they're missing out by not taking advantage of the services.
- Policy decisions, or the lack thereof, budgetary constraints, and lack of investment to build, launch, maintain, and promote eServices.
- Having the expertise to identify, create, run, and administer evolving eServices while keeping abreast of shifts in technical standards and protocols, social trends, and remaining sensitive to customer expectations.

Most governments, especially at a local or regional level, lack the deep skills to build, for example, cross-platform mobile applications, secure cloud computing facilities, or create identity management systems as pillars to support eServices initiatives.

Private sector partners can offer these skills in tandem with low-risk business models protecting governments from financial overspending and controlling capital expenditures.

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Cost savings

Hertfordshire County Council, UK, customer support, reduced transaction costs from GBP £4 / USD $6 per transaction to GBP £0.10 / USD $0.15

The dilemma for government is whether the investment in eServices is justified by projected cost savings. For example, are costs saved in one area, only for budgets to spiral out of control elsewhere?

Indeed, quantifying possible gains in eServices is difficult. However, if we can establish a baseline – the current cost of performing transactions offline – and compare it to its digital counterpart, we side-step 'guestimates' and anecdotal evidence.

"Cost savings typically do not occur until the later phases of eGovernment implementation when at least a 30% adoption rate is realized." Val Oveson, Former CIO of the State of Utah

As the frequency of large-scale eService projects increases, more information has become available, especially regarding offline versus online transaction costs.

GOV.UK states that the average cost of a digital transaction is almost:

- 20 times lower than the cost of a telephone transaction
- 30 times lower than the cost of postal transaction and
- 50 times lower than a face-to-face transaction

The following table highlights costs savings in different international activities:

Project	Activity	Transactions benefit
Dubai	13% increase in transactions on ePay portal in 2012.	• USD$1.7 billion collected from 3,322,278 transactions
SINGPASS	Authentication transactions increased from 4.5m in 2003 to 51m in 2012.	• 90% reduction in processing time • 50% reduction in data entry • 10% reduction in licenses issued
Australia	Estimated user cost savings following survey of 38 eGovernment projects.	• USD $11.52 per transaction compared to traditional channels. • Businesses estimated savings of over USD $19.71 per interaction.
Arizona, USA	Online vehicle registration is ~USD 4 less than offline	• USD $4 less than offline • Saves more than USD 1m per year
Florida	Inspector General's 2009 performance audit revealed the average per unit processing cost	• USD $4.18 for OTC payments • USD $.77 cents for electronic payments • 82% reduction in processing costs
Tennessee	The State of Tennessee E-Government vendor reported that the weighted	• USD $1.09 average online transaction cost • USD $4.32 average online transaction • 74.5% average cost reduction
Utah	Paper to digital transaction comparison	• $17.11 average cost per offline transaction • $3.91 average cost per online transaction • $13.20 cost savings per transaction

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Developing an eServices Transition Plan

Migrating public services online is the government's best tool to boost usage because it gives people a compelling reason to use the Internet

strategy&

It's natural to compare. Citizens have slick personal and business services on their mobile phones, iPads, and PCs.

By contrast, government offerings come up short. Unlike the business sector, the development of government eServices does not occur in isolation. This means an eServices transition plan involves two parallel activities: introducing new eServices, phasing out of redundant processes.

In Abu Dhabi, the initial release had a limited set of services installed an "enterprise service bus[14]" for the much larger planned system. This approach ensured strong public awareness and interest—critical for attracting continued internal support for the program.

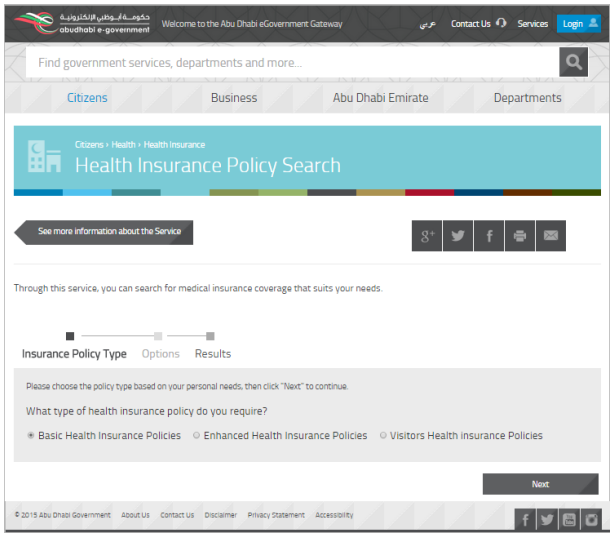

FIGURE 2: ABU DHABI - INSURANCE POLICY

Governments have taken different approaches to ensuring the success of their eServices strategies, for example,

- Changes in legislation, such as in Dubai and Denmark, where the adoption of eServices is mandatory.
- In the UK, the 'Digital By Default' service standard[15] promotes a digital first philosophy when creating new services. The standard states that it:
    - needs to be met by all new or redesigned transactional government services going live after April 2014
    - has to be maintained after a government service has gone live
    - aims to make digital services so good that people prefer to carry out the transaction online rather than by phone, post or in person
- In 2013, the Australian Government set the following targets:
    - By 2020, 80% of Australians will choose to engage with the Government through the internet or other types of online service.
    - It Digital First policy is to use digital channels as their main form of service delivery and implement end-to-end online processing, with a single authentication process by the end of 2017.

For governments implementing eServices, this means examining whether it's preferable to mandate cities, states, or municipalities to use eServices or drip-feed services online, introducing them incrementally, and hopefully increasing user adoption by degrees with every release. However, if the offer is not compelling enough, citizens are unlikely to make the switch. In parallel with this, offline services must be decommissioned with contingency plans in place if the new eServices fail[16].

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The Business Case for eServices

73.3% of citizens who needed to contact a public authority or use a public service did so online in 2013.

GOV.UK

One common thread in eServices success stories is that engagement encourages adoption.

The more you involve people, the most likely the project will find a champion, establish momentum, and iron out thorny issues.

In Norway, 78% of citizens believe that government should consult with them in the design and delivery of public services, which indicates a highly engaged population. 81% would like their government to provide more services through digital channels. 64% would like to use social media to engage with government.[17]

To develop the business case for eServices, we need to:

- Identify the high priority eServices which need to be transitioned first
- Examine how to harmonize disconnected government branches, identify silos, establish federated services and shared resources
- Identify gaps, potential gains, fixes and redundancies
- Explore how to phase out legacy systems, redundant services, and duplication of effort
- Determine KPIs for support, payment collections, processing improvement
- Increase citizen participation, accountability of politicians
- Improve the government's image as responsive and modern
- Improve the morale and motivation of civil servants

Creating the business case takes time. However, it helps us shape the transition and ensures the project stakeholders are aware of the size of the task ahead.

Attributes of Successful Transition Plans

To have the most impact, a transition plan should include the following attributes:

1. **Pan-Government Portfolio** – plan to digitize the entire portfolio of government services.
2. **End-to-end services** – ensure all steps in a service can be completed online, avoiding duplication of efforts, for example, authenticating individuals, and the need to complete any tasks offline.
3. **Citizen centric** – creating a service architecture that accelerates citizen and businesses interaction with government.
4. **Federated design** – create federated services between agencies, remove boundaries, and share resources.
5. **Efficiency-driven** program – track, measure, and quantify the performance of eServices to ensure they meet targets.

Making Smart Use of Data

Documents evolve.

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Today, billions of paper-based forms exist on government laptops, computers, and servers. However, eServices transition plans are now re-imaging static paper-based data into mobile content assets that can be searched, shared, and extended.

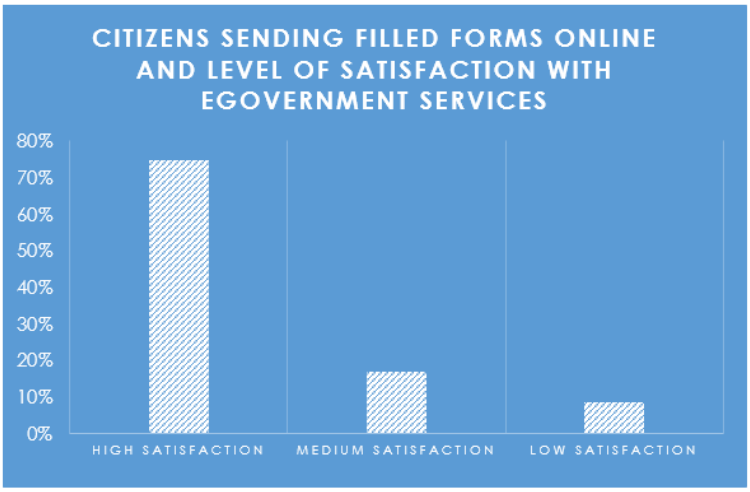

FIGURE 3: CITIZEN SATISFACTION WITH ONLINE FORMS [18]

Digital interactions cost 80% less than non-digital interactions.

Accenture

Transition plans convert paper documents to digital content, enabling us to:

- **Access** – reach content from any device with web access.
- **Session Transfer** – continue a session on a different device.
- **User Experience** – enter data once, avoid re-typing, save data during sessions, and then re-use on other federated government services.
- **Validate data accuracy** – validated answers reduce errors and provide accurate data that doesn't need cleansing.
- **Results timeliness** – data is immediately available; results can be monitored while projects are ongoing.
- **Increase response rates** – as online surveys and forms are easier to complete out than paper, response rates improve.
- **Enhance existing forms** – explanation text and instructions can be updated if changes are needed.
- **Improve processing time** – in general, typing is faster than writing. Save and Re-enter options let you continue from where you left off.

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In Norway, 78% of citizens believe that government should consult with them in the design and delivery of public services, which indicates a highly engaged population.

Transitioning Content

The transformation of manual process into digitized content assets, which can be indexed, tagged, and published on multiple devices, requires a multi-pronged approach. Some of the critical tasks involve:

- Converting hardcopy forms, applications and PDFS into digital formats
- Improving customer experience by creating intelligent forms
- Creating tutorials, reference texts, and FAQs
- Using common 'look and feel' on sites to encourage customer engagement
- Adopting common Content Management Systems (CMS) to manage the content flow between federated sites.

Faster Filing, Better Reports

In Norway, three government agencies—the Tax Directorate, the Brønnøysund Register Centre, and Statistics Norway—account for 75% of government-to-business transactions. Submitting financial documents, such as corporate tax and VAT, meant sending hardcopy documents to possibly sixteen different agencies.

The government agencies built Altinn, in partnership with Accenture using Microsoft products[19], to streamline information flow from businesses to different government agencies. Today, this means businesses can now submit reports through one central location. In addition, forms are reused, extended, and shared. Common fields are automatically populated with information from trusted partners, saving time and reducing errors. Savings are also made in paper processing, postage, and data entry.

eGovernment projects, such as Altinn, highlight how public-private partnerships help governments capitalize on the expertise of their technical partners, provide a platform for their businesses to succeed, and to position itself as a forward-looking country.

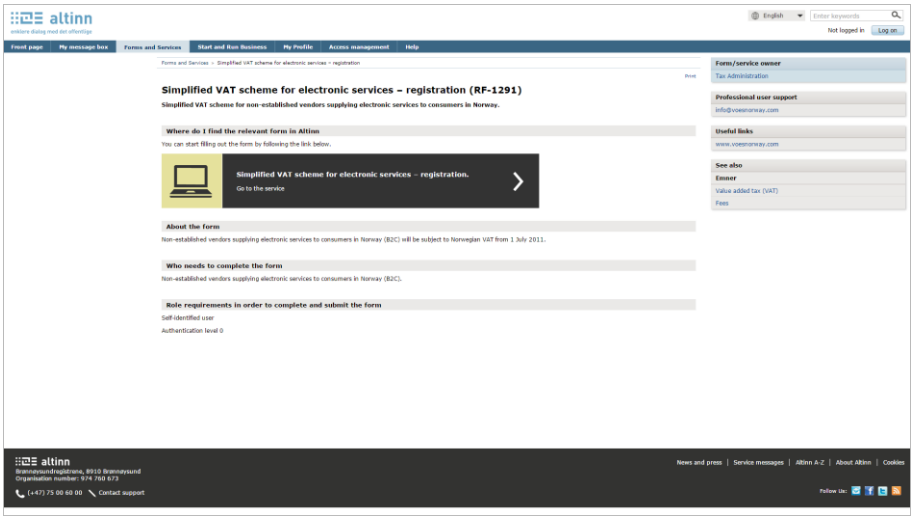

FIGURE 4: ALTINN – SUBMITTING VAT RETURNS

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Identity Assurance for Digital Citizens

Identity assurance provides a secure and effective way for citizens to use eServices. In broad terms, identity assurance means that you, as a government agency, can determine if a person who claims to be who they say they, is actually that person. Successful digital government initiatives use identity assurance to:

- Accelerate the uptake and quality of eServices
- Increase security, compliance, and implement scalable federation
- Provide shared access to applications, resources, and services across agencies and business partners

For governments, identity assurance enables them to wean citizens away from paper processing at physical locations, and steer them online where they can use eServices at their convenience, lessening the burden on office and support staff.

For users, it means they can traverse different government sites, without having to log in and out of different eServices as federated sites work in conjunction sharing information in the back-end, providing a seamless front-end.

In Singapore, for example, SingPass [20]offers a single-factor authentication method that allows registered users transact with 63 government agencies and access more than 630 eServices.

However, a combination of factors, such as convoluted identities and relationships with different agencies, and the need for different levels of assurance, put several spokes in the identify management's wheel.

This diagram illustrates the potential annual savings in different continents.

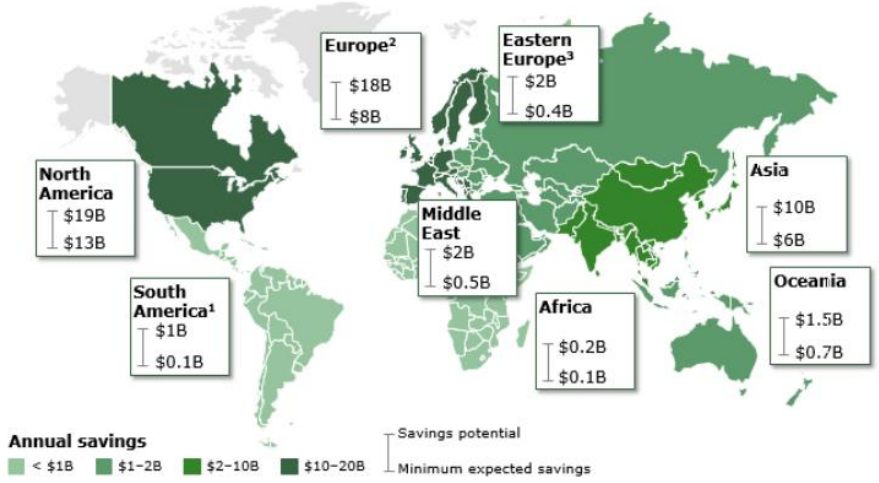

FIGURE 5: EGOV YIELDS $30–50B ANNUAL SAVINGS BY 2020 ENABLED BY TRUSTED DIGITAL IDENTITY

Despite these obstacles, and the predictable technical quagmires, federated identify management systems have become the accepted method to manage the lifecycle of our citizens' online identify.

Identity management systems play an increasingly important part in delivering eServices as:

- Single Sign-On (SSO) lets you use one account across different eServices, reducing the need to log in/out and remember passwords. The

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convenience of using SSO encourages users to spend more time using eServices reducing costs, and improving customer satisfaction.

- Coordinated identity management means that customers can check, modify and update information on one site.
- Help desk costs, security risks and auditing costs are all improved.
- For government employees, automating processes lets them concentrate on high-value tasks.

Japanese citizens complete up to 95% of transactions with the government online

The Information Technology and Innovation Foundation

The Secure Identity Alliance report [21]indicates that eGovernment services, enabled by trusted digital identity, are set to yield $50 billion annual global savings by 2020.

According to the United Nations, E-Government Survey 2014[22], identity management helps governments regulate, monitor and standardize access to its online services.

In simple terms, it means citizens don't have to remember many credentials and usernames in order to access eServices.

Identify management provides the necessary blend of security, authentication, and authorization so citizens can:

- Use the same credentials to access a range of eServices
- Tailor services to his or her needs
- Track the status of transactions, including failures and abandonments

It also gives agencies detailed analytic data on users, reducing bureaucratic procedures, minimizing redundancies and replication within agencies and enhancing the quality of service to citizens.

Of course, this creates opportunities for companies with expertise in identity management, security, authentication, and as identify service providers.

Hurdles, Barriers, Obstacles

Government CIOs don't need to be convinced. They see the value of adopting identity management systems, converting static paper documents into digital content assets, and exploring Digital Government as a Service with private sector partner.

However, attempts to stimulate a culture of innovation and collaboration across public agencies often run aground. A toxic mix of internal power plays, institutional inertia, and the disconnected silo-nature of government can undermine the most enthusiastic egovernment champion.

This doesn't mean online delivery service is impossible. Rather it means private sector partners need to be sensitive to frequently shifting government needs, and explore creative ways to diminish and dismantle institutional barriers.

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Governance Challenges

SOCITM, the professional body for ICT workers in the public and not-for-profit sectors, estimates that local governments could save up to £421 million.

Channel Shift: grasping the opportunity

SOCITM Consulting

The weaknesses, shortcomings and limitations in government agencies varies. Understanding the root cause of these deficits helps partners identify the role they can take to bridge these shortcomings.

The ICEG European Center, in its *Policies Supporting Innovation in Public Service Provision* report, highlights that "public organizations tend to pursue failure avoidance because it might be costly in human, political or budgetary terms. For this reason, they stick to known options of low performance, rather than risky solutions of potentially high efficiency."

Govlabs[23] identifies the following challenges - it refers to them as deficits - that make it difficult for the public sector to tackle today's problems:

- **Effectiveness deficit** – inflexible and inefficient process are error-prone, wasteful, expensive, and disallow agencies from capitalizing on technologies, such as cloud computing and mobile applications.
- **Budget deficit** – high-profile failings, for example, unusable eVoting systems, have eroded public confidence. Investments in limited, but expensive eServices, negatively affects public confidence in the government's ability to use funds effectively and demonstrate value for money.
- **Innovation deficit** – low public acceptance of errors coupled with inertia, lack of incentives, and constraints in public servants smother innovation.
- **Expectations deficit** – citizens feel excluded from decisions related to implementing new eServices. For many, the perception is that government only pays lip service to dialogue and avoids opportunities to engage with citizens.
- **Trust deficit** – citizens continue to lose trust in governments due to lack of transparency, traceability, and accountability. Trust is further eroded by badly designed, error-prone, unresponsive eServices, which offer few real benefits over their offline counterparts.

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Pathway towards Digital Government as a Service

Governments recognize the need to go digital and connect with citizens on their own terms. The potential cost savings of shifting to digital publishing platforms, establishing identity management systems, automating archaic processes, reducing waste, churn, and duplication of efforts is obvious.

The difficult is coordinating these moving targets, juggling shifting priorities, while taking care of day-to-day business.

In order to achieve this, we recommend the following steps:

Lowering costs is still an important consideration in service delivery, but adding public value is gradually taking over as the primary goal of eGovernment

2014 United Nations E-Government Survey

1. Develop an Agile Citizen-Centric Government

Partners can help government agencies move to a citizen-centric model by:

- Placing citizens at the center of strategic decisions
- Create a 'Digital by Default' philosophy to encourage user adoption
- Developing KPIs to ensure quality of service from partner's performance
- Actively seeking feedback, engaging, using social media channels
- Developing tools to capture feedback, respond, and improve processes

2. Redesign Inefficient Archaic Processes

Governments can accelerate the design, development, and maintenance of process using partners with business process transformation expertise, creating a cascade effect across departments by:

- Eliminating costs associated with paper-based processing
- Helping the government develop a single view of customer
- Encourages foreign investment, for example, improving its 'ease of doing business' ranking[24] position.

3. Automate Processes To Do More With Less

Agile public-private partnerships can reduce budgets deficits while offering more services by:

- Harmonizing disconnected units, sharing common resources thereby avoiding duplication of efforts, reducing waste and churn
- Automating cross-departmental filing, indexing and processing.
- Improving citizen satisfaction by saving data entered during sessions, avoiding the need to re-enter data

4. Explore Digital Government as a Service

Reduce financial exposure and risks using this model. Additional benefits include:

- Improve lead times to collect payments
- Anticipate revenue collections and allocate budgets accordingly
- Merge similar processes, reduce overheads, avoid duplication of efforts

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5. Integrate to Gain Economies of Scale

Partners can help municipalities and states work together to find economies of scale in implementing eServices. Additional savings are made using shared services, by reducing software, license, and storage costs. Partners can also help:

- Unify disconnected agencies and bespoke systems
- Integrate legacy systems and business applications
- Improve content quality and delivery across mobile devices and browsers
- Encourage document discovery, reducing help desk costs

6. Make Content Interactive, Open, Mobile, Shareable

In tandem with process redesign, develop content development strategies that:

- Pre-populate forms with common data to process transactions faster and more accurately
- Give citizens a single view of accounts with access to legacy data
- Offer public APIs to encourage product development by third parties
- Encourage document discovery online to reduce strain on departments and allow employees to focus on high-value tasks
- Create open data and content assets that can be shared and extended

Next Steps

For government agencies re-imagining their public services, this six-point checklist serves as a roadmap for the transformation of delivery services.

However, the relentless pace of technical and social changes, coupled with rising citizen expectations, means we cannot afford a 'wait and see' approach.

Instead, digital transition plans that offer a portfolio of eServices - so well developed that citizens feel compelled to use them - must be fast-tracked, preferably in tandem with the infrastructure and mandates necessary to ensure adoption.

By cultivating selective public-private partnerships, Digital Government as a Service can reduce the burden on government CIOs, accelerate rollouts, and allow legacy processes to be phased out gracefully.

This is echoed by the 2014 United Nations E-Government Survey which suggests that while controlling costs is necessary for eServices development, adding public value is now the primary goal of eGovernment.

Investment in eServices ensures that competitive governments, committed to a vision of transforming public administration, move up international ranking tables, reflecting their commitment to a vibrant and inclusive digital society.

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Sources and References

[1] Accenture, "Digital Government: Pathways to Delivering Public Services for the Future"

[2] https://www.regjeringen.no/globalassets/upload/fad/kampanje/dan/regjeringensdigitaliseringsprogram/digit_prg_eng.pdf

[3] Accenture: Pathways to Delivering Public Services for the Future

[4] http://www.irishtimes.com/business/hurdles-remain-in-the-race-to-electronic-government-1.2085648

[5] United Nations E-Government Survey 2014

[6] http://www.servicepublic.fr and http://mon.service-public.fr/

[7] https://www.ecitizen.gov.sg/Pages/default.aspx

[8] http://ict.govt.nz/

[9] https://www.realme.govt.nz/

[10] Directgov 2010 and Beyond: Revolution Not Evolution

[11] regjeringen.no/globalassets/upload/fad/kampanje/dan/regjeringensdigitaliseringsprogram/digit_prg_eng.pdf

[12] http://www.lgfocus.com.au

[13] Checklists to Evaluate The Economic Case For E-Government, Dubai, UAE

[14] Booz and Hamilton

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[15] https://www.gov.uk/service-manual/digital-by-default

[16] www.computerweekly.com/news/2240242763/What-went-wrong-with-Defras-rural-payments-system

[17] Accenture, Digital Government

[18] European Commission: Digital Agenda Scoreboard 2014 - eGovernment

[19] Microsoft Case Study, Inter-Agency Collaboration Simplifies Reporting Obligations in Norway

[20] https://www.singpass.gov.sg/sppubsvc/index.html

[21] Enabling the eGovernment 2020 Vision: the Role of Trusted Digital Identity, The Secure Identity Alliance

[22] United Nations, E-Government Survey 2014, page 111

[23] Govlab Research, Toward Reimagining Governance

[24] http://data.worldbank.org/indicator/IC.BUS.EASE.XQ

European Commission: Digital Agenda Scoreboard 2014 - eGovernment

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