

Qatar e-Government 2020 Strategy

Executive Summary

2020

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Foreword

It is impossible to envision Qatar's digital future without embracing technology to create a more efficient, effective, accessible and transparent government that meets the needs of individuals and businesses. All over the world, governments are providing more and more information and services online as well as automating their own processes to provide value to customers, help spur economic development, and create more interactive relationships with the people they serve. As e-Government efforts expand, the demand for more user-friendly, 'anytime, anywhere' access to government and its services will continue to increase.

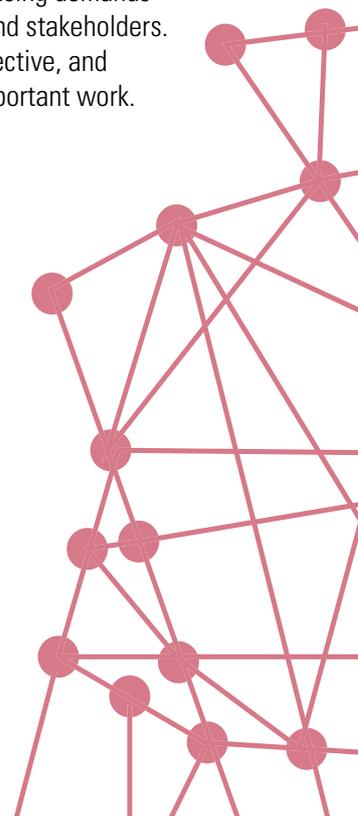
That is why Ministries across Qatar's government have joined together to accelerate e-Government initiatives. In late 2013, H.E. Prime Minister Sheikh Abdullah bin Nasser bin Khalifa Al Thani identified e-Government as a priority and formed a Steering Committee, spearheaded by the Ministry of Information and Communications Technology and composed of 8 of the largest ministries. The Committee was charged with developing and guiding the implementation of a nationwide e-Government strategy. *Qatar e-Government 2020* is the result of the Committee's efforts. The strategy, outlined in the pages of this document, has one overarching vision -- "All individuals and businesses will benefit from connecting online with Qatar's more open and efficient government".

This strategy applies to all government entities and builds on the progress made over the past several years since Qatar's i-Gov program was established. Our work has been driven by the mandate of the five-year National ICT Plan – to achieve wide accessibility and effectiveness of key government services through innovative ICT applications, new transactional online services, creating greater awareness of these services among individuals and businesses. Qatar's e-Government offerings have earned international recognition, with Qatar placing 27 out of 190 countries on the *United Nations E-Government Survey 2012*. The same UN survey placed Qatar at number 9 on the e-participation index. Yet in spite of our progress, our experience tells us there is much more work to be done.

Qatar e-Government 2020 offers a blueprint for moving forward. The strategy has three main objectives. The first is to better serve individuals and businesses by bringing 100 percent of government services online and ensuring users can complete e-services end-to-end online. The second is to create efficiency in government administration through automation of functions, state of the art applications, and a common ICT infrastructure that saves money, increases security, and enhances the user experience. And the third is to develop a more open government with enhanced participation of citizens and residents in their government and to offer greater access to data that will help spur innovation and help diversify our economy.

This plan, along with Qatar's commitment to building next-generation infrastructure to meet the increasing demands of all sectors, are ambitious. Our efforts will succeed with the support of all government employees and stakeholders. After all, our government belongs to all of us, and we will all reap the benefits of a more efficient, effective, and participatory government. I hope you will join me and my colleagues across the government in this important work.

Dr. Hessa Al-Jaber
Minister of Information and Communications Technology



e-Government for All

e-Government for Qatar means a focus on the people.

All around the world, technology is enhancing people's everyday lives. Technology allows us to do the things we need to get done in ways that are simpler, easier and faster than ever before. For governments, technology offers new opportunities to connect with, and meet the needs of, members of the public and the business world, while also giving government employees the tools they need to build a world-class civil service that is more efficient, open and innovative.

e-Government uses technology to deliver real benefits for people who access government services. This will involve making more transactions available online, simplifying websites to make them easier to use, and creating innovative new applications that improve people's lives.

The strategy, "Qatar e-Government 2020" will benefit everyone.

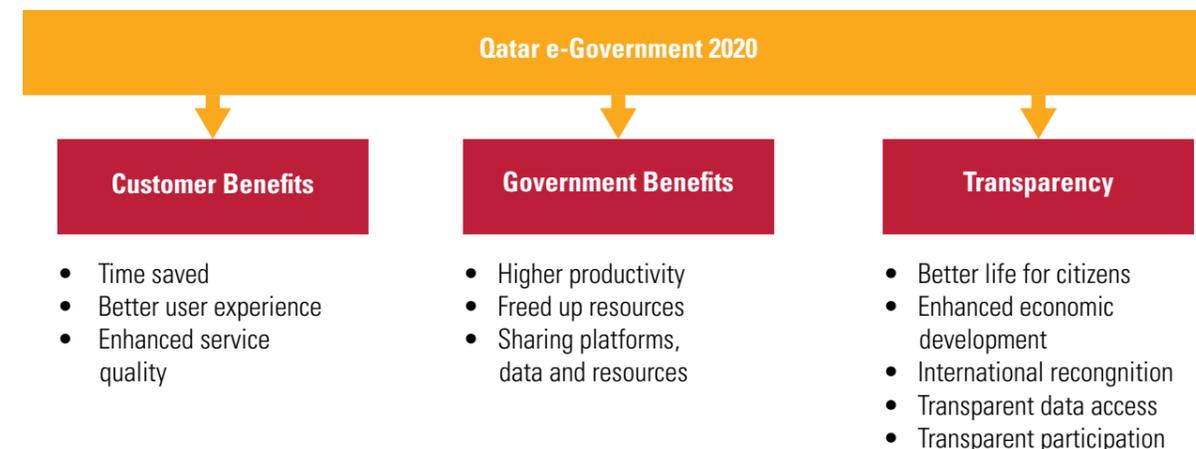
Members of the public – whether they are citizens, residents or visitors – will be able to access e-Government services that are simple, secure, and available anytime, anywhere. The population has doubled in recent years and is expected to reach 2.5 million by 2022, and the government places a high priority on meeting the needs of people in Qatar, and making the best use of rapidly changing technology, now and in the future.

Businesses and private organizations will find it easier, simpler, and faster to register and operate a business. Qatar's Strategy for economic diversification relies on creating the right environment for investment and businesses, and removing any barriers to doing business, so that the economy can continue to grow and develop.

Government entities will be confident they are providing better services to people and businesses, are more efficient, and are achieving better overall outcomes for the nation. The result is savings in public administration due to e-Government, and time savings to citizens and other users. Beyond cost and time savings, e-Government also creates greater transparency and higher-quality outcomes.

Qatar e-Government 2020 delivers widespread benefits.

Qatar e-Government 2020 will deliver benefits to customers through better services and to government through administrative efficiency, which leads to better outcomes for the nation. These benefits have been derived from broad international and specific Qatari experience:



Customer benefits: Most obviously, e-Government creates value for the direct customers. It saves them time because they no longer need to make many trips to government offices. It provides a better user experience, when paper forms and certificates are not required. And it enhances service quality, as automation allows for faster and less error-prone processing of customer requests.

Government benefits: e-Government streamlines a wide range of administrative processes. By automating cumbersome processes, the government can increase productivity and redirect resources to more important priorities. It can also improve operating efficiency across and within agencies by leveraging shared platforms, data and resources.

Benefits for the Nation: At an aggregate level, e-Government drives better outcomes for the whole nation. Better services will help Qatar create a better life for its citizens and residents. Serving businesses faster and providing them with valuable open datasets will enhance national economic development. Successful e-Government will also raise the international profile and standing of Qatar. Greater transparency fosters trust and makes it easier for different parties to interact. In particular, e-Government supports more transparent government performance by being able to track the speed and quality of execution. This can be further enhanced by promoting prudent access to open data, for example, health care outcomes. Finally, electronic channels allow for constituents to have a much more open and transparent participation in policy creation.

Qatar eGovernment 2020 provides these benefits, with a comprehensive approach, tailored to the specific starting situation in Qatar which has been analyzed in great depth. The vision for Qatar eGovernment 2020 has been inspired by the people who will benefit from it most. It reflects the desires of citizens, business people, and government employees to embrace technology to access and deliver services. They are optimistic about a future of simple, fast and secure transactions and eServices. They also look forward to a more open government and having the opportunity to contribute their ideas to the decision-making process.

Qatar eGovernment 2020 vision is:

All individuals and businesses will benefit from connecting online with Qatar's more open and efficient government

Strategic Objectives

Quality, Efficiency and Openness are the foundations of Qatar’s digital future.

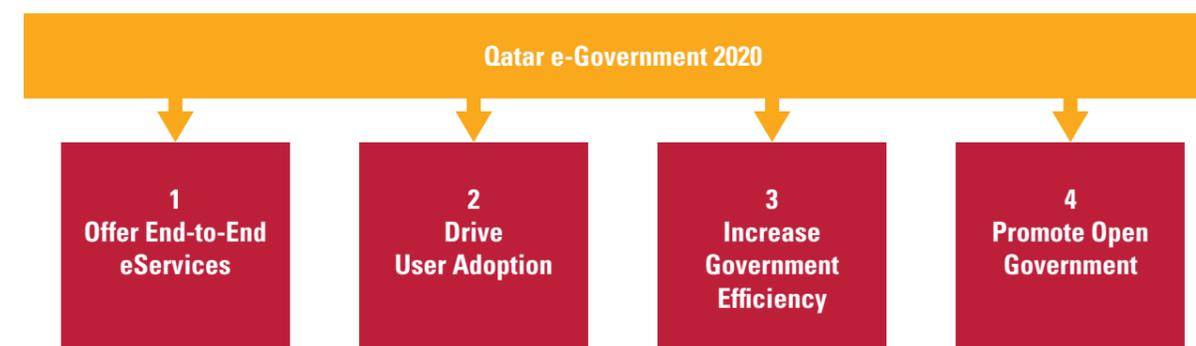
Qatar e-Government 2020 vision is supported by three strategic objectives that determine where action will be taken to deliver benefits and value:

- **Strategic Objective 1: Better Serve Individuals and Business** – emphasizes the customer focus, serving the people who live and work in Qatar, and the businesses that fuel the nation’s economic growth.
- **Strategic Objective 2: Create Efficiency in Government Administration** – maximizes opportunities to make better use of public funds.
- **Strategic Objective 3: Increase Government Openness** – generates economic and political value by collaborating with customers on co-design.

Qatar e-Government 2020 Targets		
Better Serve Individuals and Business	Create Efficiency in Government Administration	Increase Government Openness
100% of government services are available online by 2020	80% adoption of government shared services	20% increase per annum in users participating on forums moderated by government
80% of all services are available “end-to-end” online	80% adoption of shared infrastructure	10% increase per annum in availability of government data sets
80% of all transactions are conducted online		

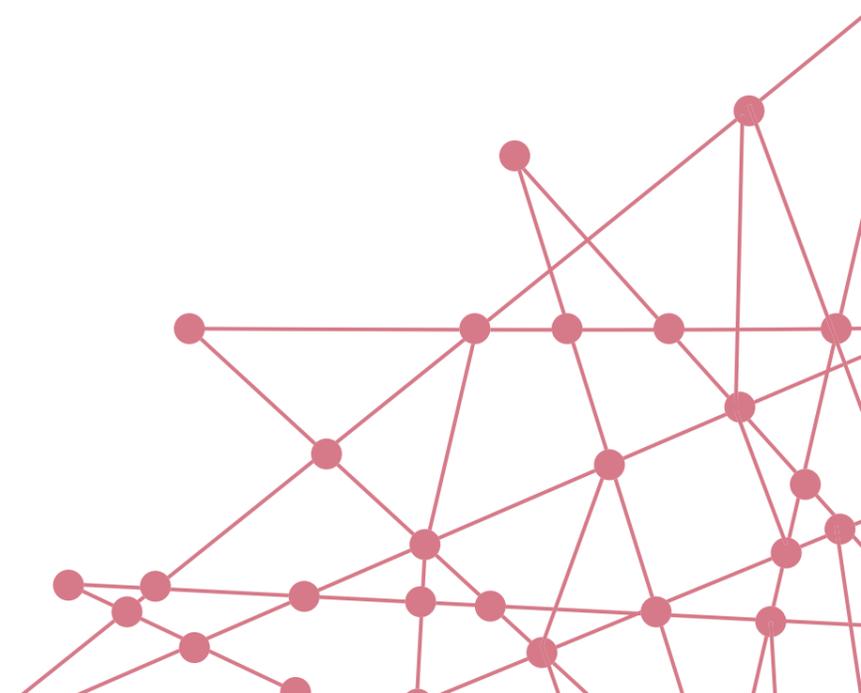
Turning Vision into Action

Qatar e-Government 2020 is based on four strategic thrusts aligned with Qatar National Vision 2030, National ICT Plan 2015, and National Broadband Plan.



Qatar e-Government 2020 will guide Qatar’s future as a leading proponent of e-Government. It builds on the success of previous e-Government strategies, international trends, and best practices and was developed using broad stakeholder engagement with a large number of government entities and focus groups representing members of the public and businesses.

The Strategy sets out what is needed to translate the *Qatar e-Government 2020* vision into concrete actions and propel the nation to the next level of achievement and excellence in e-Government.



The Strategy aligns with the National ICT Plan 2015 and is complemented by the National Broadband Plan, the eHealth Strategy, the National Development Strategy 2011–2016, and sector-specific plans. In addition, the four thrusts contribute substantially to each of the four pillars and objectives of the Qatar National Vision 2030.

Qatar e-Government 2020 thrusts and their relevance to Qatar National Vision 2030

Qatar e-Government 2020 contribution to the Qatar National Vision 2030		
Qatar National Vision 2030		Qatar e-Government will:
Human Development	An educated population	Improve the population's digital awareness and skills through the delivery of exemplary online services
	A healthy population: physically and mentally	
	A capable and motivated workforce	
Economic Development	Sound economic management	Deliver efficiency gains both for government and customers that can be reinvested elsewhere
	Responsible exploitation of oil and gas	
	Suitable economic diversification	
Social Development	Social care and protection	Strengthen the social fabric in the nation through the creation of a more engaged public
	A sound social structure	
	International cooperation	
Environmental Development	A balance between development needs and protecting the environment	Allow the public to build informed opinions on the apparent trade-offs between environment and development

Implementing the Strategy will require the concerted efforts from all government entities. The four strategic thrusts have been established to align efforts and focus on the critical priorities. Each thrust is supported by a comprehensive schedule of programs and projects.

Strategic Thrust 1: Offer End-to-End eServices

The first strategic thrust supports the strategic objective to 'Better Serve Individuals and Business' by offering services online that are quick and easy to use.

To get the greatest benefit from eServices, users will fully complete transactions in the online environment ("end-to-end"), instead of needing several interactions on different channels to complete a single transaction. eServices will make it easier for the public to communicate with government agencies, interact over the Internet, and reduce the time to get service, which will lead to higher use by individuals and companies. Use of eServices will be further increased by the provision of services and information to a variety of digital devices.

The outcome of the first strategic thrust is that government services are fully completed electronically without the need for customers to go to the government entity. The focus is on three key areas:

- Providing public-facing services as end-to-end online services, ensuring the quality of information services, and re-engineering of government processes so that the service can be completed electronically.
- Making transactions end-to-end, except where tasks cannot be done completely electronically, for example technical examination of cars. For services that currently rely on the submission of hard copy documents this change will require significant re-engineering of business processes.
- Maximizing the use of mobile technology in providing simple and easy services.

Thrust 1 will be delivered by programs to build and enhance end-to-end eServices in each government entity supported by projects to develop and promote appropriate policies and guidelines.

1.1. eServices development program (one for each government entity)

Each government entity needs to plan and implement the changes needed to achieve the Strategy targets of 100% of services online and 80% available as end-to-end services.

Each government entity is expected to achieve this by the following:

- **eServices implementation plan:** each entity will create an implementation plan, based on their current state of eServices delivery. The plan will outline what services will be available online and when; what technology solutions will be used; how the ictQATAR shared components and infrastructure will be used to achieve this; how the entity will promote the online channel over existing channels; and how it will attract the resources necessary to implement the projects. The plan is likely to contain a number of entity-specific projects in addition to those identified through this Strategy.

The plan will be based on a detailed analytic study of all services provided to beneficiaries by the entity, and a thorough evaluation of current on-line services. The prioritization of the services in the plan will be based on:

- The needs of the public – individuals and businesses – gathered by surveys of target groups
- The volume of transactions for each service
- The utilization rate
- The delivery of benefits

- **eServices development project(s):** the entity will manage the necessary projects to develop the online services outlined in the plan.

- **End-to-end process redesign project(s):** end-to-end eService delivery will require a critical review of established processes to identify how they need to change to meet the current and future needs of users, including taking advantage of online or mobile capabilities and real-time data exchange and verification with other entities.

- **Review and update policies:** existing policies can be barriers to end-to-end online service delivery and uptake, for example the requirement for physical signatures and stamps. A dedicated activity will identify factors like internal entity structures, policies, processes and procedures which hinder eServices development, and recommend how these barriers can be removed to promote e-Government development.

1.2. Mobile apps development program (one for each government entity)

Mobile phones play a critical part in citizens' daily lives, particularly Qataris'. Developing mobile applications for selected eServices gives them a broader range of channels and greater convenience.

Mobile has now passed the fixed device as the service delivery channel for information and services.

Powerful smartphones, combined with fast wireless broadband access, and device-independent cloud services are paving the way for smart, location- and situation-specific services that are highly appealing for users. People are using their mobile phones in their cars, on the street and everywhere in between to find a restaurant nearby, interact with friends and relatives, watch movies and sports, shop for goods and services, monitor their diets, virtually tour potential destinations, and remotely connect to their other devices. In 2013, the average Qatar household owned 5.1 smartphones, and by 2020, smartphones are expected to be ubiquitous.

As the use of commercial mobile services increases rapidly, those same users expect that government services will also be available on their smartphones. This will require more than simply fitting current services to smaller screen sizes. An extra effort needs to be made to make services simple to use and minimize user data entries, as these are cumbersome and error-prone on mobile devices. In addition, incorporating the full power of smartphones will make for truly compelling services: for instance, built-in cameras can be used to quickly scan document copies; location awareness allows giving precise directions on how to reach the nearest open post office; payments can be safely performed via the telephone bill; and authentication via secure mobile means can replace the use of smart cards. Each government entity will conduct a detailed study to identify services that could take advantage of the mobile channel. The study will:

- Identify suitable services that can be transferred, completely or in part, to mobile delivery
- Identify target beneficiaries (individuals and businesses)
- Prioritize the development and implementation of mobile services

Overall, mobile provides a huge opportunity in further driving the adoption of government eServices, making them accessible anytime, anywhere.

Guidelines will support entities to deliver their projects as outlined below.

1.3. eServices framework

eServices can be classified in a number of types: for example applications for a service, with or without payment, inquiries, change of details, or attestation of documents. To improve the efficiency of eService development and delivery, the framework will define patterns and solutions that provide support for entities and create a consistent experience for users. Strategic Thrust 3 will build common components for use by entities to achieve rapid deployment of eServices.

1.4. Process redesign guidelines

Existing processes were not designed to be transacted end-to-end online. The guidelines will provide support for entities to create simpler processes, and optimize the use of online, mobile and data exchange capabilities resulting in a better overall user experience.

1.5. User experience design guidelines

A standard interface will ensure a consistent user experience when using eServices from different entities. User experience design guidelines will support entities to create a standard user interface.

Strategic Thrust 2: Drive User Adoption

Thrust 2 is complementing Thrust 1 in achieving the strategic objective to 'Better Serve Individuals and Business' by driving the adoption of eServices.

This thrust focuses on the 'demand' for eServices, and works with the 'supply' side initiative of Thrust 1 to reach the goal of 80 percent of transactions conducted online. Currently, up to 70 percent of transactions for services available online today are still conducted offline. The key to increasing uptake is to promote these services and educate users that they can have trust and confidence to transact securely, and understand the benefits of accessing services online.

Experience in other countries has shown that the best way to drive adoption is to encourage users to 'have a go'. An example of this would be actively promoting the online channel in service delivery centers, where staff can guide users through completing a transaction. Other means include providing users with the right incentives (for example: making transactions involving a payment cheaper online than offline, or providing quicker turnaround for online transactions) and making sure users are fully aware of the benefits of online services (for example, easier tracking of the status of applications, auditability, and possible time saved).

It is also important to establish trust in electronic services. Users want to know that their transaction can be completed end-to-end online in a secure manner. This means that their personal data is handled in accordance with defined privacy and security principles, and can only be accessed by authorized agents. Finally, the first experience of an eService must be a positive one, so the user continues to use the online channel and build a preference for it over other channels.

2.1. User education and promotion program

Currently there is very limited awareness of the benefits of e-Government. Furthermore, users have a poor perception of e-Government. This program will actively increase awareness and education of e-Government amongst citizens and businesses in Qatar, highlighting its many benefits and developing initiatives for driving uptake of e-Government. *Qatar e-Government 2020* government will be marketed by highlighting the benefits, including:

- Use of the latest technologies to make valuable services available to the public – individuals and businesses
- Improvement of all government services – making them easy to use, simple and secure
- End to end services online, enabling the public to use services from entities working together as one government
- Services on multiple channels so that the public can use their preferred method for interacting with government.

2.2. Data privacy policy

Focus groups have shown that perceptions and concerns around data privacy are a significant barrier to online service uptake. There is currently a lack of trust in e-Government as users are unclear how their data will be treated – it is critical that users know their personal information is being used in an appropriate manner and not compromised. This will be addressed through a data privacy policy.

2.3. Digital communication policy

Qatar e-Government 2020 will change the way government interacts with its users, with a deliberate shift away from printed paper to digital communications. End-to-end online transactions will allow government entities to interact with users electronically through email, SMS and even a digital mailbox.

This process will be guided by a Digital Communications policy, supported by guidelines that set out the terms of government-user communication and ensure they are conducted in an appropriate manner.

Strategic Thrust 3: Increase Government Efficiency

Thrust 3 primarily focuses on realizing the second strategic objective, to 'Create Efficiency in Government Administration'.

Efficiency will be increased by using shared IT across government entities where there are clear, demonstrable benefits from sharing.

- Support government entities in the implementation and development of online services by providing 'middleware' components (so named as they sit between the front-end application and back-end infrastructure). Examples include: payment gateway, single sign on, digital mailbox, and tell-us-once facilities.
- Support government entities to accelerate their digital transformation through shared government ICT infrastructure and shared whole of government applications. Examples of shared ICT infrastructure are the Government Network and Government Data Center, while the human resources system ("Mawared") and the government financial management system ("Al Khazen") are examples for whole of government applications. Although a number of the shared services already exist, *Qatar e-Government 2020* will focus on scaling up and creating new shared services including government cloud services.
- Increase access channels to individuals and businesses, maximizing the use of mobile applications and adopting latest technologies to increase access and availability of services to different segments of the society.

Key outcomes of Thrust 3 will include:

- A consistent user experience across all channels, including mobile
- A set of 'building blocks' to facilitate greater usability and more efficient delivery of online services (e.g., 'tell me once' authentication)
- Greater efficiencies and security arising from shared infrastructure

Thrust 3 will be delivered by programs to build and operate platforms and applications, supported by projects to develop and promote appropriate policies and guidelines. This thrust will drive the digital transformation of government agencies.

It consists of five major programs – eServices enablement, access channels, digitization of personal information, common infrastructure for e-Government, and development of whole of government applications – which will increase the efficiency and effectiveness of government agencies. Supporting these major programs will be projects to develop standards and reference architecture, service level agreements and risk management.

3.1. eServices enablement program

Benchmark countries drive uptake through offering value-added user friendly features which enable end-to-end eServices and enhance the overall user experience. The eServices enablement program will deliver enhanced platform features for a better user experience. The interrelated projects will be carefully coordinated and managed across the program. Eight projects will progressively improve the eServices offered on Hukoomi and individual government entity websites:

- **Tell-us-once:** Allow customer details to be captured/ updated once and then henceforth be known to all applicable entities. For example, when updating contact details, users can choose to update with one, many or all entities they have a relationship with (e.g. they may choose to supply a contact phone number for an office phone for certain entities, but a house phone for others).
- **Single-sign-on/ authentications:** Simplify registration by providing single sign on capability so that users can use the same credentials to transact and are only asked for these credentials once in the process.
- **Entity data exchange:** Build a 'broker' to facilitate data exchanges between entities and third parties in a 'hub and spoke' form rather than building multiple point-to-point exchanges.
- **Digital mail and personal vault:** Deliver a digital mailbox solution so any government paper mail can be converted to secure digital formats.
- **Simplified payments:** Simplify setting up payment arrangements for transactions with government, including the use of modern payment methods.
- **Delegated authorizations:** Enable users to authenticate and delegate authorities to other trusted parties. This is particularly useful for the disabled and elderly or those people who delegate their government affairs over to spouses or professionals.
- **Personalization and Discovery:** Upgrade the current Hukoomi experience so users can more easily discover information and services.
- **Courier service:** Use a courier service for eServices that continue to need an offline component, for example renewing a passport.

3.2. Access channels program

Current channels for accessing eServices are limited to the web from in-home/ in-business desktop computers and select mobile applications. People experience a broader set of channels as a result of technological progress and evolving user expectations. Additional access channels will add customer choice, extend the customer reach and increase the number of transactions done online.

These projects will improve channels for access to government information and services:

- **Operationalize SMS channel:** Currently a proven channel for simple notifications such as transaction confirmations or status updates, this channel continues to have value in Qatar where many users still have feature phones.
- **Phase out kiosks, enable Service Centers:** As kiosks in shopping malls are being phased out, a new generation of kiosks should be created for locations such as the one-stop-shop Service Centers. It has been proven that this type of location gives users an excellent opportunity to 'have a go' at eServices in a safe and supportive environment.
- **Introduce video channel:** For complex transactions users may need extra support. In addition to the phone channel, the Qatar National Broadband will bring high-speed Internet to users' homes, opening up the opportunity to have a 'face to face' interaction with case managers, technical personnel, or application assessors.

3.3. Digitization of offline credentials program

Specific credentials issued by government are frequently requested in an attested physical format to complete a government transaction. Data on government-issued credentials should be available in electronic format to enable end-to-end transacting online, which will save time, reduce costs and increase convenience for both the customer and government.

Some of these documents are generated by an overseas government/ institution for example, a university degree certificate. Once supplied in hardcopy for one transaction, customers should not be required to present these hardcopies for subsequent interactions.

The digital version of the credentials will use the data exchange, so the user can provide any entity with access to this data.

3.4. Common e-Government ICT infrastructure program

In technical terms, infrastructure sits at the layer beneath the various e-Government applications and middleware already discussed. Sharing infrastructure between entities potentially offers a very large source of efficiencies, because the commonalities are typically large. This program focuses on capturing those efficiencies.

Entities will benefit from access to common infrastructure to deploy more eServices. This can help speed up the introduction of new eServices at a lower cost driven by economies of scale.

Eight projects will create the common e-Government ICT infrastructure:

- **Robust government network:** Continuously improve the government network (e.g. to dark fiber) and roll out the national broadband network.
- **Entity data center consolidation:** Consolidate entities' data centers in the shared services environment.
- **Disaster recovery facility:** Create a disaster recovery facility for the shared services data center.
- **Government Cloud Infrastructure:** Create infrastructure for government cloud solutions.
- **National Contact Center:** Expand the functionality and reach of the national contact center.
- **Digital Certification:** Set up the infrastructure required to enable digital signing of transactions.
- **Government shared services integrated offering:** Combine the shared services components in an integrated fashion to entities building their online services and adopting shared services, including project management services, and migration paths for applications and data.
- **Web presence enablement:** Assist entities to establish a solid web presence in a cost-effective and efficient manner.

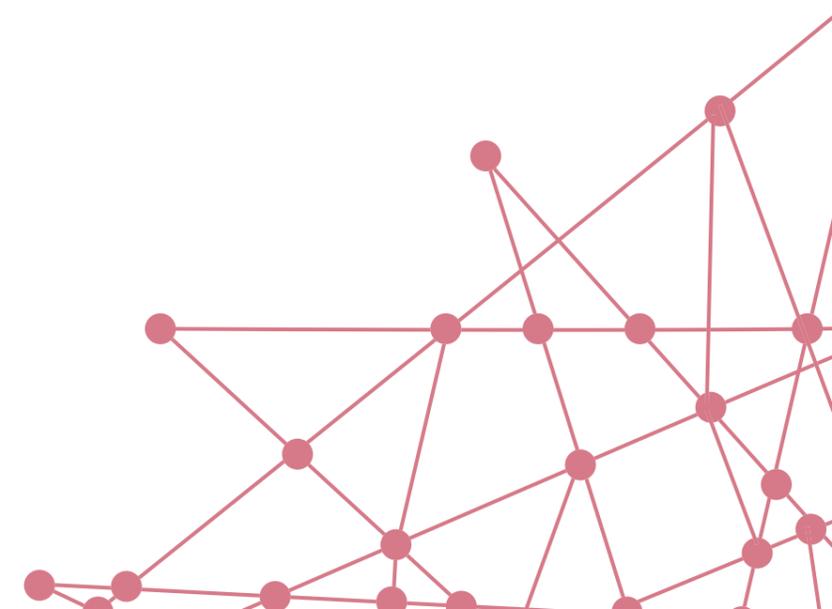
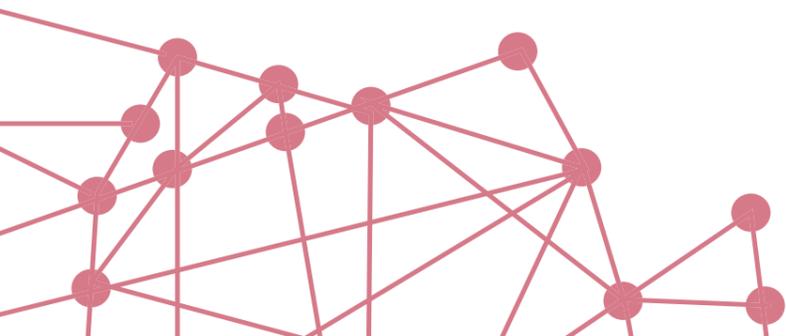
3.5. Whole-of-government applications program

Government entities can share common applications, typically with common 'horizontal' functions in the back office, to create further value. Shared common applications reduce cost, create commonality across government entities and further enable efficiency gains through automation.

The whole-of-government application program contains eight projects:

- **Shared services applications development:** Study the feasibility, plan and deliver whole-of-government applications such as Financial Management, Human Resources, eProcurement, eCorrespondence, Case Management, eSupplier, and Asset Management.
- **Shared applications support center:** Establish a support center for whole-of-government applications.
- **Digital signatures:** Apply the digital certificate infrastructure to defined business transactions, either between government entities or between businesses and government.
- **Shared services awareness:** Promote, create awareness and explain the benefits of the various shared services components on offer.
- **National content digitalization for government:** Assist turning paper based (internal) processes into digital workflows by digitizing content.
- **Documentation & communications effectiveness:** Better management of government documentation by properly cataloging and storing information.
- **Big data/ business intelligence:** Apply emerging big data technologies to the data held by government to support evidence-based policy.
- **Whole-of-government procurement service:** Standardize procurement across government to take advantage of economies of scale for common items and services.

These programs will be supported by a set of guidelines that establish the consistency and standardization required for effective sharing.



3.6. Standards and guidelines for next-generation online portal

Policies ensure that progress is made and entities follow specific directives laid out by senior leadership. Guidelines ensure that there is a degree of consistency and standardization across government solutions.

3.7. Shared services SLA

Shared services can leverage greater scales to deliver ICT services more efficiently and effectively. Shared services typically establish a customer-provider relationship. Entities require commitment to the service levels that they can expect by subscribing.

Service level agreements (SLAs) will ensure there is clear governance of this relationship including transparency and identification of issues.

3.8. e-Government reference architecture

The e-Government reference architecture will support standardization of eService delivery, allowing the government to reduce the costs of developing and operating eServices, while at the same time improving overall quality. The architecture will define how to integrate multiple entities' portals while at the same time maximizing re-use.

3.9. Risk management strategy

With the automation and integration of customer processes come various forms of risk. Along with managing the typical security risks that can arise when opening up government IT systems to the public, there are also reputational risks to be managed (e.g. through loss of data, misuse of information).

A cross-entity approach to risk management will help the government to focus on keeping citizen and sensitive data secure, improve transparency and take pre-emptive steps to mitigate risks.

Strategic Thrust 4: Promote Open Government

Thrust 4 has been designed to realize the third strategic objective - 'Increase Government Openness'

Government will embrace dialogue with constituents, whether as individuals or as part of a business. This dialogue should relate to overall government policy development and to government services.

Technology offers many opportunities to facilitate this dialogue through eParticipation and eConsultation. As a result, constituents will feel more engaged with government and satisfied that their opinions are heard, and the government will feel confident that it has actively sought a wide range of views on important decisions.

Transparency can be increased by providing a platform to deliver open data to the public. Increasingly, governments are recognizing that there is value within the vast amounts of data they hold which goes far beyond the purpose for which it was originally collected and extends the boundaries of individual entities. Emerging technologies around big data are showing a huge potential to discover additional insights through combining data from various, seemingly unrelated sources. Making data available to the public enables the creativity of a wider group to come up with insights. Often, what starts out as a simple 'mash-up' of two data sources becomes a commercial product, fueling the economy.

Thrust 4 will be delivered by three projects to develop open government, policies and guidelines.

4.1. eParticipation

This project will demonstrate the commitment of the government to engage citizens using the Internet as a channel. The project will include:

- A forum for electronic posting to encourage open dialogue, the expression of opinions and online discussions
- A tool for electronic notes to gather views and build proposals from citizens
- A system of email consultation to allow citizens to participate in the discussions across the whole of government
- Use of social networking sites (Facebook, Twitter, etc.) to participate and interact with the public

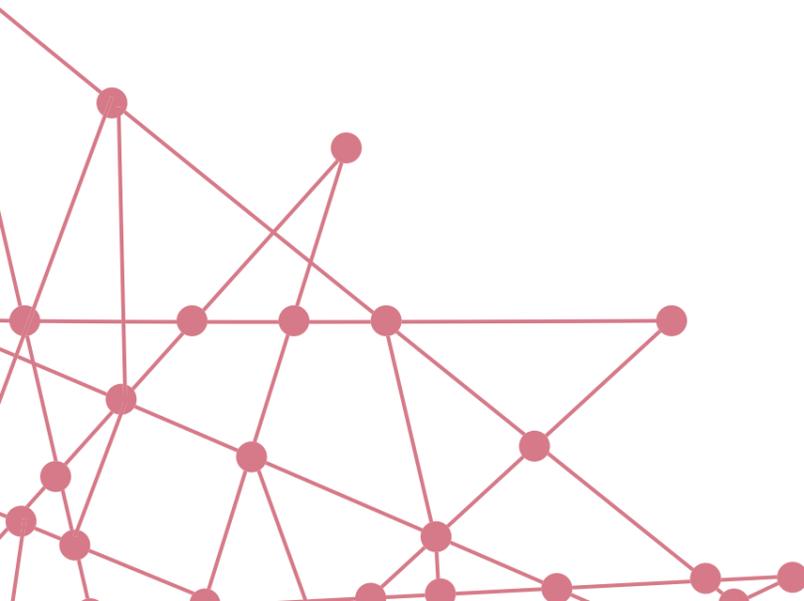
4.2. Open data portal

Governments hold a significant amount of data, some of which would benefit customers or the economy if released. As such, the government should take steps to prudently publish data that is in demand, ensuring that the data is timely and in a usable format. The open data portal will focus on expanding and promoting open data.

4.3. Open government policies

Citizens are demanding more transparent government operations, in terms of how they can best access services, and how they can communicate with key decision makers. Open government policies will promote effective execution and provide assurance of the required data security and privacy.

Policies of transparency and social participation are central in meeting these needs; they indicate the commitment to open government that protects personal privacy, and adopts standards and conditions, such as Creative Commons, for the use of published data.



Implementation Roadmap

The four strategic thrusts outlined in this Strategy have been logically derived from the overall e-Government vision and strategic objectives, and are supported by a comprehensive set of project charters. The delivery of these projects will take considerable time and coordination; tackling all of them will require contribution and support from all government entities.

The roadmap contains the schedule for these projects over a sequence of three waves. The majority of the activity starts during the first wave, to build sufficient momentum for delivering the rest of the projects, and meet the 2020 targets.

The aim of the first wave is to put in place the right environment so that eServices can be delivered, while also expanding the current offering of eServices to include high volume, strategically important services. The second wave focuses on further expanding the number of eServices available and improving the overall rate of online adoption. The third wave completes the availability of all services online and switches the focus to realizing internal government efficiencies.

Qatar e-Government 2020 Roadmap

	2014 - 2015 Wave I Improve eServices offering	2016 - 2017 Wave II Drive uptake	2018 - 2020 Wave III Foster collaboration
1. Offer End-to-End eServices	1.1 eServices development 1.2 Mobile apps development 1.3 eServices framework 1.4 Process redesign guidelines 1.5 User experience design guidelines	1.1 eServices development phase 2 1.2 Mobile apps development phase 2	1.1 eServices development phase 3 1.2 Mobile apps development phase 3
2. Drive User Adoption	2.1 User awareness and e-Government promotion 2.2 Data privacy policy 2.3 Digital communication policy	2.1 Continued e-Government promotion	2.1 Continue eGovernment promotion
3. Increase Government Efficiency	3.1 eServices enablement 3.4 Common eGovernment ICT infrastructure 3.6 Standards and guidelines for next generation online portal 3.7 Shared Services SLAs 3.8 e-Government reference architecture	3.2 Access channels 3.3 Digitization of offline credentials 3.4. Common eGovernment ICT infrastructure phase 2 3.5 Whole of e-Government applications 3.9 Risk management strategy	3.5 Whole of Government applications phase 2
4. Promote Open Government	4.1 eParticipation 4.3 Open government policies	4.2 Open data portal	

This roadmap has been designed to be ambitious but doable. Used to the speed of the digital economy, stakeholders demand rapid digital transformation from the Government as well. Qatar is set to meet and exceed these high expectations.

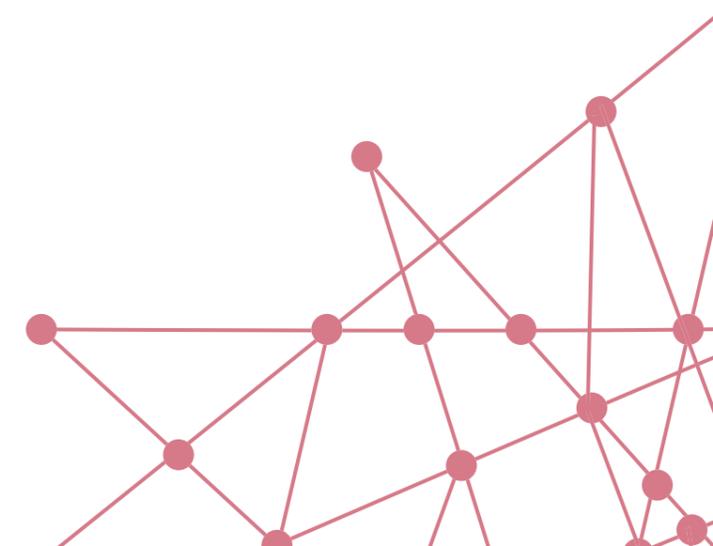
Ensuring Success

Delivering the ambitious 2020 vision requires a transformational effort touching every government entity. To succeed, the Strategy must be implemented at a number of levels: whole-of-government; across entities; and within individual entities themselves. The Strategy requires significant risks to be monitored and mitigated at the whole-of-government level to successfully deliver the large amount of work defined in the Strategy. These include:

- Capability of current ICT staff and limited capacity of qualified available resources (short and long term).
- Willingness of the public to use online services.
- High level sponsorship by senior leadership – obtaining and maintaining it.
- Communication of the Strategy with all levels of customer-facing staff in government entities, and the change management effort required to make sure they embrace the vision.
- Interdependencies between projects that need to be carefully mapped and managed.
- Ambitious timeframe of implementation.
- Ability to adjust the roadmap to respond to changes in the environment and technology.
- At a more technical level, creating the interoperability required to exchange data between entities and ensuring data presented is cleansed and of high quality.

While the four strategic thrusts respond to these risks, work is also needed to mitigate governance related and skills related risks. Two supporting initiatives will deliver the institutional level response to these risks: delivering through an effective operating model, and strengthening ICT skills in ictQATAR and entities.

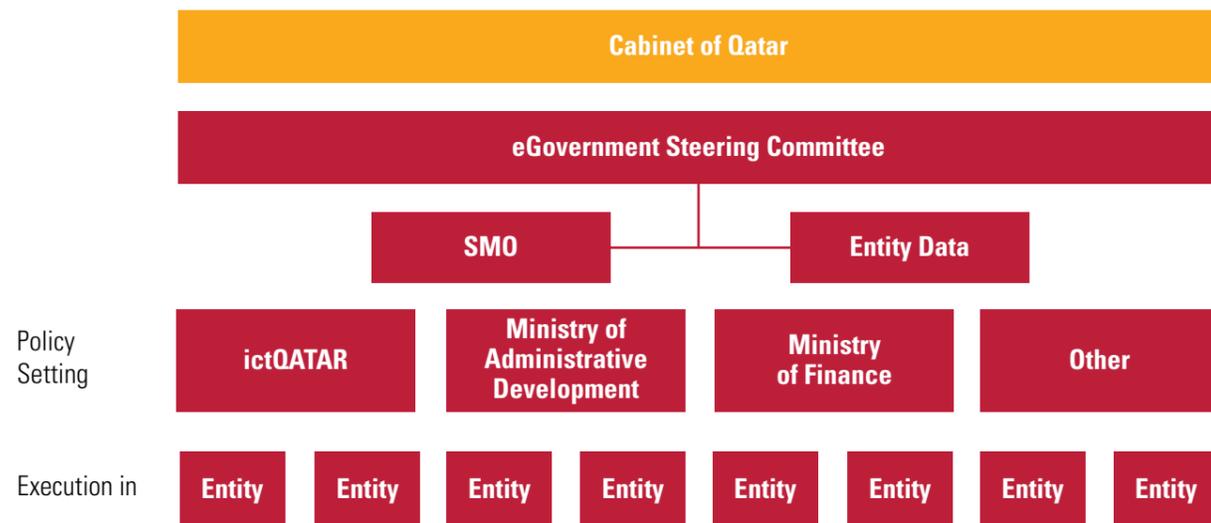
Supporting initiatives essential to implementation success		
Operating Model	5.1	Effective management of e-Government Strategy
	5.2	Shared services operating model
Strengthen ICT skills in ictQATAR and entities	5.3	Government ICT Human Capital strategy
	5.4	eService Center of Excellence and entity education



The first supporting initiative – **Operating Model** – supports a clear distinction between policy and delivery units and their respective roles. The implementation requires the development of a clear structure of governance that defines the responsibilities of the various actors involved in the implementation as follows:

- The Council of Ministers will be responsible for legislative changes and is ultimately responsible for the *Qatar e-Government 2020* strategy.
- The Steering Committee will provide oversight of implementation of the Strategy, resolve issues facing the implementation, provide coordination with government agencies, and approve the project plans for *Qatar e-Government 2020*.
- The Strategy Management Office (SMO) under the supervision of the Ministry of Communications and Information Technology will actively manage the e-Government projects, prepare progress reports, and manage the issues and risks of *Qatar e-Government 2020*.
- The Digital Transformation Assessment (DTA) body will assess progress and adherence to the relevant e-Government guidelines of each government entity, and prepare the annual report of digital transformation, for review by the Steering Committee and submission to the Council of Ministers.
- Policy will be set by respective Ministries such as ictQATAR (for ICT-related investments and policies), the Ministry of Administrative Development (process and human capital development), the Ministry of Finance (Budget approval) and others.
- Individual government entities will be responsible for delivering the programs and for ongoing operations.

GOVERNANCE STRUCTURE FOR THE IMPLEMENTATION



Effective governance levers will be put in place to steer programs and projects towards achieving *Qatar e-Government 2020* vision. These include:

- A review of the ICT budget and procurement, which ictQATAR would undertake to confirm that these are aligned with the e-Government Strategy and related policies and guidelines.
- Monitoring by the SMO to oversee progress and resolve issues.
- Periodic assessments by the DTA to evaluate e-Government outcomes within entities against planned objectives.

The combination of the above governance structure with these effective levers will create a solid platform to drive the implementation of the Strategy, making sure it moves forward and stays on track throughout the three waves of the roadmap.

The second supporting initiative – **Strengthen ICT skills in ictQATAR and other entities** – is aimed at attracting and retaining the right ICT skills to make the *Qatar e-Government 2020* vision a reality. Qatar currently has a shortage of ICT skills and qualified people often choose to build their career in the private sector rather than the public sector. To truly make e-Government a reality, the right environment to attract and retain ICT skills needs to be built. ictQATAR and the IT departments of the entities will attract and develop the right talent by offering skilled ICT workers compensation and career paths in line with best practice from the private sector.

Specific areas for attention include:

- Compensation based on skills and experience, and in line with private sector earnings.
- Career paths that will be predictable and structured, based on performance (not tenure), supported by learning and development opportunities, and tracked through regular evaluation points.
- Using change management and recognizing and rewarding success to date.
- A centralized resource pool (Center of Excellence), with the government injecting skilled resources into entities to support the delivery of e-Government programs.

This initiative will require some important changes in the way the government operates today. These are required to truly create the talent foundation for modernizing government operations through e-Government.

In conclusion, *Qatar e-Government 2020* as outlined in this document is ambitious, yet well grounded in reality.

But the *Qatar e-Government 2020* future will only happen when all entities of the government work towards the common vision. While many projects are the responsibility of ictQATAR, each affected entity will need to develop and implement e-Government services according to an agreed schedule.

This schedule will dramatically increase the availability of online services in the next two to three years, complemented by a drive to enhance overall end-to-end user friendliness, government efficiency and openness.

The effort to achieve this will be significant, and requires energy and stamina. The rewards will be substantial, for people and government alike.



Acknowledgments

We would like to thank various representatives of the more than 35 government entities for their contributions to the development of the Strategy, as well as the many ictQATAR staff for providing their insight into successes and areas for development in implementing previous strategies.

The Strategy was approved by the e-Government Steering Committee, chaired by Dr. Hessa Al-Jaber, Minister of Information and Communications Technology. We thank the members for their active participation and contributions during development and review of the Strategy:

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