

**Chapter 4****World e-government rankings**

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The United Nations E-Government Survey 2010 finds that citizens are benefiting from more advanced e-service delivery, better access to information, more efficient government management and improved interactions with governments, primarily as a result of increasing use by the public sector of information and communications technology. Most countries have published a tremendous amount of information online, many going beyond basic websites to provide national portals that serve as a major starting point for users to connect to government services in different ministries. At the same time, many developing countries need to devote additional energy to transactional services as well as the electronic means of engaging citizens in public consultation and decision-making.

To better reflect the higher expectations of e-government development around the world, the United Nations Department of Economic and Social Affairs introduced significant changes to the survey instrument in this round, focusing more on how governments are using websites and Web portals to deliver public services and expand opportunities for citizens to participate in decision-making. The number of questions increased from 86 in 2008 to 95 in 2010. More specifically, twenty-five questions were added and 16 questions removed from the questionnaire in the 2010 survey round, while 29 questions were modified.

Table 4.1 Top 20 countries in e-government development

Rank	Country	E-government development index value	Rank	Country	E-government development index value
1	Republic of Korea	0.8785	11	Singapore	0.7476
2	United States	0.8510	12	Sweden	0.7474
3	Canada	0.8448	13	Bahrain	0.7363
4	United Kingdom	0.8147	14	New Zealand	0.7311
5	Netherlands	0.8097	15	Germany	0.7309
6	Norway	0.8020	16	Belgium	0.7225
7	Denmark	0.7872	17	Japan	0.7152
8	Australia	0.7863	18	Switzerland	0.7136
9	Spain	0.7516	19	Finland	0.6967
10	France	0.7510	20	Estonia	0.6965

As a result of these changes, the world average of the e-government development index registered a slight decline compared to previous years. Nevertheless, the decline should not be interpreted as the degeneration of e-government on a global scale since the index measures e-government development of countries relative to one another within a given year. More importantly, a drop in a country's ranking may serve as a reminder of the need to devote greater resources to improving online services and expanding access to telecommunication infrastructure.

#### Box 4.1 United States Social Security Administration leads in customer satisfaction

##### United States: Social Security Administration

According to the American Customer Satisfaction Index for the 3rd quarter of 2009, the Social Security Administration (SSA) is the top government portal in terms of citizen satisfaction. Citizens have rated the SSA's Retirement Estimator and the IClaim as the two highest e-government services with a score of 91 and 90 respectively.

The Customer Satisfaction Index looks at functionality, navigation, look and feel, site performance and content to determine the level of customer satisfaction. The SSA portal receives a high number of repeat customers and has become one of the primary resources for information on social services in the United States. The SSA portal has continued to make improvements to respond to customers' needs, which has led to an increase in loyalty and cost savings.



<http://www.ssa.gov>

#### Box 4.2 Bahrain embraces Web 2.0

##### Bahrain: Web 2.0

Bahrain's e-government programme has been innovative when it comes to customer's centrality. Citizen involvement has been ensured right from the strategy formulation and continuous feedback has been obtained during implementation. In continuation to this philosophy, the Bahrain e-government program has embraced the Web 2.0 to reach its customers. Ministers and senior government officials have established an open-door policy to interact with citizens. The e-government program has its presence on social networking sites such as Facebook and YouTube. In addition, the national portal and ministry websites provide features such as open forums, blogs, live chats, online polls, e-newsletters and other interactive services that involve citizens in government decision making. For instance, two of the ministers and the CEO of the e-Government Authority have interacted with citizens through such blogs.

Citizens' participation and constructive feedback was recognized and implemented by changing the national portal and reprioritizing its objectives, thereby achieving 85 % of customer satisfaction on the e-government programme as per the May 2009 Survey.



<http://www.bahrain.bh/>

#### 4.1 Global e-government development

High-income countries enjoy the top rankings in the e-government development index in 2010 as in previous years. Among the top five countries in the 2010 United Nations E-Government Survey, the Republic of Korea received the highest score (0.8785), followed by the United States (0.8510), Canada (0.8448), the United Kingdom (0.8147) and the Netherlands (0.8097).

Figure 4.1 shows that Europe (0.6227) and the Americas (0.4790) score above the world average (0.4406). Asia (0.4424) is almost the same as the world average. Africa (0.2733) and Oceania (0.4193) score below the world average.

The majority of positions in the top 20 rankings belong to high-income countries, which is not surprising since they have the financial resources to develop and rollout advanced e-government initiatives, as well as to create a favorable environment for citizen engagement and empowerment. Developed countries have a distinct advantage in achieving higher rankings in the survey, as nearly two-thirds of the weight of e-government development index is allocated to the telecommunication infrastructure and human capital components, which both require long-term investment. For emerging and developing countries, the challenge is to invest in all three dimensions – online services, telecommunication infrastructure and education – to narrow the current digital gap. In other words, having a great website does little in e-service provision if the majority of people in the country cannot read or write, nor if they have no access to the Internet.

What is noteworthy is that some developing countries have begun to catch up with higher-income countries despite these challenges. Bahrain (0.7363), for example, has made significant strides in the two years since the previous survey, moving up in the rankings to 13th place in 2010 from 42nd place in 2008. Bahrain's recent emphasis on citizen engagement and the electronic provision of government services has propelled the country into the top 15 in e-government development, somewhat closer to Singapore (0.7476) which is among the global leaders in provision of electronic and mobile public services.

Mobile technology will become an affordable tool to fill in the digital gap between developed and developing countries, given the rapid price decline of mobile products. Emerging and least developed countries have already demonstrated that they are capable of narrowing the digital gap by investing in websites and Web portals and by applying tools such as telecentres, kiosks, community centres and other similar outlets to increase access to the Internet. They are adopting the use of mobile technology at a fast rate, which will trigger the need to develop more mobile e-government services. The private sector in these countries has an opportunity to work with government to create and distribute mobile services. The 2010 survey recorded an increase in the use of mobile technology for communication from governments to citizens, whether it is simple SMS, alert notification or a full-fledged mobile service.

In general, Member States are channelling more human and financial resources to fulfill the ever-increasing digital needs.

The 2010 survey found that some countries are increasingly active in seeking customer satisfaction through online polls, blogs, surveys and other means. This indicates that a growing number of countries have recognized the importance of citizen feedback via Internet and are taking advantage of social networking tools to create better websites and Web portals.

Though emerging and developing countries have yet to fill the digital gap, table 4.1 shows that those developing countries that have channeled more investment to telecommunications infrastructure, education and online services could compete with developed countries and, in some cases, even score higher.

Figure 4.1 **E-government development index regional averages**



## 4.2 Regional comparisons

On a regional basis, Europe receives the highest score, followed by the Americas. These are the only two regions above the world average. Africa continues to lag far below the world average, given that most of the world's least developed countries are in this region and they generally lack the financial and human resources to fully implement e-government. The Asian region is slightly above the world average, but the Republic of Korea is the exception, as it stands at the top of 2010 rankings in the e-government development index.

### 4.2.1 E-government in Africa

Figure 4.2 indicates that all sub-regions in Africa fall below the world average. However, there has been some improvement in the region, especially in Middle, Northern and Western Africa since the 2008 survey. Northern Africa leads the region and is closely followed by the Southern Africa. Western Africa lags far behind the other sub-regions and is the lowest scoring sub-region in the 2010 Survey.

Table 4.3 shows that Tunisia leads Africa in e-government development, followed by Mauritius and Egypt. It also shows that the majority of countries in the 'top ten' rankings are developing countries from Northern and Southern Africa.

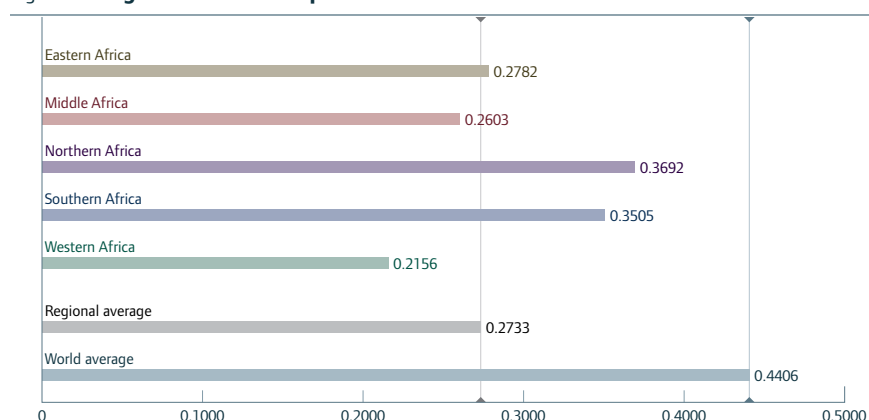
### Eastern Africa

Mauritius (0.4645) and the Seychelles (0.4179) continue to lead the region, though both countries register lower rankings in the 2010 Survey. Mauritius dropped by 14 positions and the

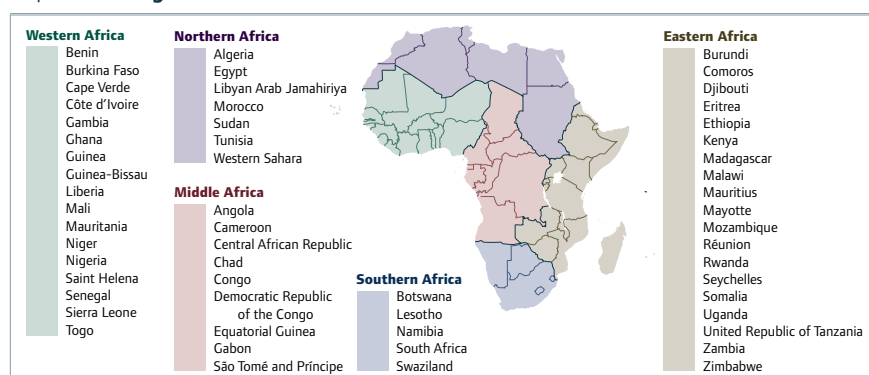
Table 4.2 **Regional comparisons**

Region	E-government development index value	
	2010	2008
Africa	0.2733	0.2739
Eastern Africa	0.2782	0.2879
Middle Africa	0.2603	0.2530
Northern Africa	0.3692	0.3403
Southern Africa	0.3505	0.3893
Western Africa	0.2156	0.2110
Americas	0.4790	0.4936
Caribbean	0.4454	0.4480
Central America	0.4295	0.4604
Northern America	0.8479	0.8408
South America	0.4869	0.5072
Asia	0.4424	0.4470
Central Asia	0.4239	0.3881
Eastern Asia	0.6470	0.6443
Southern Asia	0.3248	0.3395
South-Eastern Asia	0.4250	0.4290
Western Asia	0.4732	0.4857
Europe	0.6227	0.6490
Eastern Europe	0.5449	0.5689
Northern Europe	0.7113	0.7721
Southern Europe	0.5566	0.5648
Western Europe	0.7165	0.7329
Oceania	0.4193	0.4338
World average	0.4406	0.4514

Figure 4.2 E-government development in Africa



Map 4.1 Sub-regions of Africa



Seychelles dropped by 35 positions. Seychelles has the best infrastructure and education indices, which explains its high ranking in the region.

Zambia (0.2810) and Zimbabwe (0.3230) both improved in e-government development. Zambia jumped 15 positions to stand at 143rd in the 2010 Survey ranking and Zimbabwe jumped 12 positions to rank the 129th.

Table 4.4 E-government development in Eastern Africa

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Mauritius	0.4645	0.5086	77	63
Seychelles	0.4179	0.4942	104	69
Kenya	0.3338	0.3474	124	122
Zimbabwe	0.3230	0.3000	129	137
United Republic of Tanzania	0.2926	0.2929	137	143
Madagascar	0.2890	0.3065	139	135
Uganda	0.2812	0.3133	142	133
Zambia	0.2810	0.2266	143	158
Rwanda	0.2749	0.2941	148	141
Malawi	0.2357	0.2878	159	146
Comoros	0.2327	0.1896	160	170
Mozambique	0.2288	0.2559	161	152
Djibouti	0.2059	0.2279	170	157
Ethiopia	0.2033	0.1857	172	172
Burundi	0.2014	0.1788	174	174
Eritrea	0.1859	0.1965	175	169
Somalia	...	...	...	...
Sub-regional average	0.2782	0.2879		
World average	0.4406	0.4514		

Notwithstanding the overall low scores of the e-government development index in the region, some countries have managed to improve their Web presence either in national portals or ministry websites.

Kenya's national portal received the highest score in the region, followed by Mauritius and Madagascar. Ethiopia registered the third highest online service score in the region, whilst its infrastructure and education indices hindered it from scoring higher in the e-government development index.

The websites of most ministries in the region provide basic information, but e-services are generally not available. The Ministry of Education of Mauritius scored the highest among ministries in the region.

Table 4.3 Top ranked countries in Africa

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	Tunisia	0.4826	0.3458	66	124
2	Mauritius	0.4645	0.5086	77	63
3	Egypt	0.4518	0.4767	86	79
4	South Africa	0.4306	0.5115	97	61
5	Seychelles	0.4179	0.4942	104	69
6	Cape Verde	0.4054	0.4158	108	104
7	Libya	0.3799	0.3546	114	120
8	Botswana	0.3637	0.3647	117	118
9	Lesotho	0.3512	0.3805	121	114
10	Gabon	0.3420	0.3228	123	129
	World average	0.4406	0.4514		

## Middle Africa

The majority of countries in Middle Africa generally scored higher in the 2010 Survey and improved their respective rankings.

Gabon (0.3420) leads the sub-region in the 2010 Survey and has moved up six positions compared to the 2008 Survey. This should be attributed to Gabon's edge in infrastructure and education indices. São Tomé and Príncipe (0.3258) stands at the second position in the ranking, followed by Angola (0.3110) and Congo (0.3019).

Table 4.5 **E-government development in Middle Africa**

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Gabon	0.3420	0.3228	123	129
São Tomé and Príncipe	0.3258	0.3215	128	130
Angola	0.3110	0.3328	132	127
Congo	0.3019	0.2737	135	148
Equatorial Guinea	0.2902	0.2890	138	145
Cameroon	0.2722	0.2734	149	149
Democratic Republic of the Congo	0.2357	0.2177	158	162
Central African Republic	0.1399	0.1412	181	179
Chad	0.1235	0.1047	182	182
Sub-regional average	0.2603	0.2530		
World average	0.4406	0.4514		

In the area of 'online service assessment', Cameroon's ministries of health and education enjoyed the highest scores among all ministries in the region. These ministries were the only ones in the region to benefit from some degree of citizen involvement.

## Northern Africa

The region as a whole performed better in the 2010 Survey. Tunisia (0.4826) received the highest score in the region, followed by Egypt (0.4518), Libya (0.3799) and Morocco (0.3287). Tunisia's Ministry of Finance provides a number of e-services and a wealth of information and scored the highest among all ministries in the region. In addition, each ministry's websites in Tunisia (health, education, labour and social services) all receive the highest scores in the region in its respective category.

Egypt stands the second in the regional ranking, but its national portal enjoys the highest ranking in the region. Egypt and Algeria both regressed

### Box 4.3 AfriAfya, Kenya

#### Kenya: AfriAfya

AfriAfya, the African Network for Health Knowledge Management and Communication is comprised of seven of the largest health NGOs in Kenya with the goal of harnessing ICTs to improve community health in rural and other marginalized Kenyan communities. The network provides communities with relevant up-to-date health information through a two-way communication with health-care providers.



<http://www.afriafya.org/>

### Box 4.4 Cyber Ethiopia

#### Ethiopia: Cyber Ethiopia

The Amharic language has Africa's oldest script, which has been used for written communication since 100 B.C. The CyberEthiopia initiative has converted the Amharic script so that it is Web-friendly, responding to the challenge of digital multilingualism and the development of the local script for digital use. The use of the Amharic script on the Internet facilitates Ethiopia's digital inclusion and full participation in the information society.



<http://www.cyberethiopia.com>

in the 2010 Survey, falling to the 86th and 131st positions respectively. Morocco has jumped 14 positions to a global rank of 126th. Libya and Sudan have improved their rankings as well since the 2008 Survey.

Libya continues to lead in the human capacity index, followed by Tunisia and Algeria. The telecommunication infrastructure in the region remains low compared to other regions, with Tunisia having the highest infrastructure index. Morocco leads the region with the highest ratio of Internet users per 100 inhabitants.

Table 4.6 **E-government development in Northern Africa**

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Tunisia	0.4826	0.3458	66	124
Egypt	0.4518	0.4767	86	79
Libya	0.3799	0.3546	114	120
Morocco	0.3287	0.2944	126	140
Algeria	0.3181	0.3515	131	121
Sudan	0.2542	0.2186	154	161
Sub-regional average	0.3692	0.3403		
World average	0.4406	0.4514		



#### Box 4.5 Algeria alerts citizens to their new national hotline for H1N1

##### Algeria: H1N1 National Hotline

On the national portal of Algeria <http://www.and.s.dz/> there is a link titled "Alerte Grippe Porcine", for the H1N1 flu. The feature takes the user to a portal page with a specific section for health care professionals along with resources for citizens with links to information and medical resources, a new telephone hot line number, audios from radio spots sharing information on symptoms to watch for and hygiene protocol, and weekly health newsletters have been archived.



<http://www.and.s.dz/>

#### Southern Africa

All the countries in Southern Africa scored lower in the 2010 Survey than they did two years ago. South Africa (0.4306) continues to lead the region, but it also witnessed the most dramatic drop in rank, to 97th in the 2010 Survey. Botswana, Lesotho and Namibia have maintained the similar e-government rankings in 2010 Survey as compared to the 2008 Survey. Swaziland did not receive any scores in the online service index because none of its websites could be opened during the review period.

The Western Africa region is the lowest ranking region in the 2010 Survey, showing virtually no improvement since the 2008 Survey. This should be mainly attributed to poor telecommunications infrastructure and low human capacity in the region. Broadband access is practically non-existent in the region, and the best case is Cape Verde with only 1.48 subscribers per 100 inhabitants.

Table 4.7 E-government development in Southern Africa

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
South Africa	0.4306	0.5115	97	61
Botswana	0.3637	0.3647	117	118
Lesotho	0.3512	0.3805	121	114
Namibia	0.3314	0.3445	125	126
Swaziland	0.2757	0.3454	145	125
Sub-regional average	0.3505	0.3893		
World average	0.4406	0.4514		

Cape Verde (0.4054) leads the regions thanks to its higher telecommunication infrastructure and human capacity components, followed by Côte d'Ivoire (0.2805) and Ghana (0.2754).

Côte d'Ivoire enjoys the highest online service score followed by Cape Verde, Mali, Senegal and Burkina Faso. Côte d'Ivoire also experienced the most significant change in rankings as compared to the 2008 Survey, gaining 29 positions to rank 144th globally. Côte d'Ivoire barely had a Web presence in 2008 but the current survey finds that the national and ministry websites are much more robust and offer a wealth of information. Mauritania also improved its ranking by 9 positions from the 2008 Survey to rank 157th globally. Other countries remained essentially unchanged in global rankings.

#### Western Africa

Table 4.8 E-government development in Western Africa

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Cape Verde	0.4054	0.4158	108	104
Côte d'Ivoire	0.2805	0.1853	144	173
Ghana	0.2754	0.2997	147	138
Nigeria	0.2687	0.3063	150	136
Mauritania	0.2359	0.2028	157	168
Senegal	0.2241	0.2531	163	153
Togo	0.2150	0.2191	165	160
Liberia	0.2133	0.2170	166	163
Gambia	0.2117	0.2253	167	159
Benin	0.2017	0.1860	173	171
Mali	0.1815	0.1591	176	175
Sierra Leone	0.1697	0.1463	177	178
Burkina Faso	0.1587	0.1542	178	176
Guinea-Bissau	0.1561	0.1521	179	177
Guinea	0.1426	0.1402	180	180
Niger	0.1098	0.1142	183	181
Sub-regional average	0.2156	0.2110		
World average	0.4406	0.4514		

Any substantive progress in e-government development in the region is likely to be a long way off, given its poor telecommunication infrastructure, low human resources capacity and the amount of investment required – which far exceeds the financial capacity of the region. Despite limited resources, a few countries managed to improve their e-government. The national website of Benin features podcasting and online forums with a dozen thematic areas for its citizen's participation. Ghana's national website utilizes a 'social media' box featuring tools such as YouTube and containing direct links to the Facebook accounts of government officials in the Ministry of Information.

### 4.2.2 E-government in the Americas

Figure 4.3 illustrates that the status of e-government development in Northern America, which is far ahead of other regions. The region's two countries, the United States and Canada, enjoy the second and third global ranking respectively in the 2010 Survey. Central America is the only region in the Americas that registered a regional average below that of the world average, though many developing countries in this region scored above the world average.

Among the top 10 countries in the Americas, five countries are from South America, three are from the Caribbean, and one is from Central America.

#### Caribbean

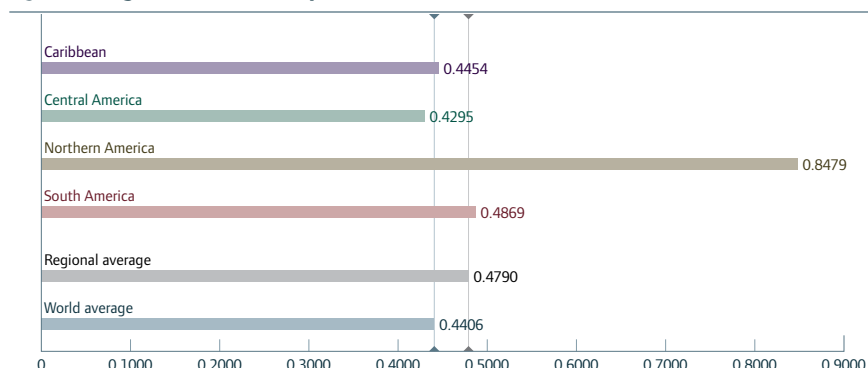
In the 2010 Survey, the Caribbean region witnessed some improvement and consequently elevated its score above the world average. In the 2008 Survey, its e-government development index was slightly below the world average.

Table 4.10 E-government development in the Caribbean

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Barbados	0.5714	0.5667	40	46
Antigua and Barbuda	0.5154	0.4485	55	96
Bahamas	0.4871	0.4911	65	71
Trinidad and Tobago	0.4806	0.5307	67	54
Saint Kitts and Nevis	0.4691	0.4814	75	78
Dominican Republic	0.4557	0.4943	84	68
Saint Lucia	0.4471	0.4746	88	80
Jamaica	0.4467	0.4679	89	85
Saint Vincent and the Grenadines	0.4355	0.4306	94	98
Cuba	0.4321	0.3990	96	111
Grenada	0.4277	0.4545	99	92
Dominica	0.4149	0.3746	105	116
Haiti	0.2074	0.2097	169	165
Sub-regional average	0.4454	0.4480		
World average	0.4406	0.4514		

Barbados (0.5714) continues to lead the region thanks to its better telecommunication infrastructure and higher adult literacy and gross enrolment, followed by Antigua and Barbuda (0.5154) and the Bahamas (0.4871). Barbados leads the Caribbean in both Internet users and broadband subscribers per 100 inhabitants. This advantage allowed Barbados to maintain its e-government edge despite the fact that other countries scored more highly in online services.

Figure 4.3 E-government development in the Americas



Map 4.2 Sub-regions of the Americas

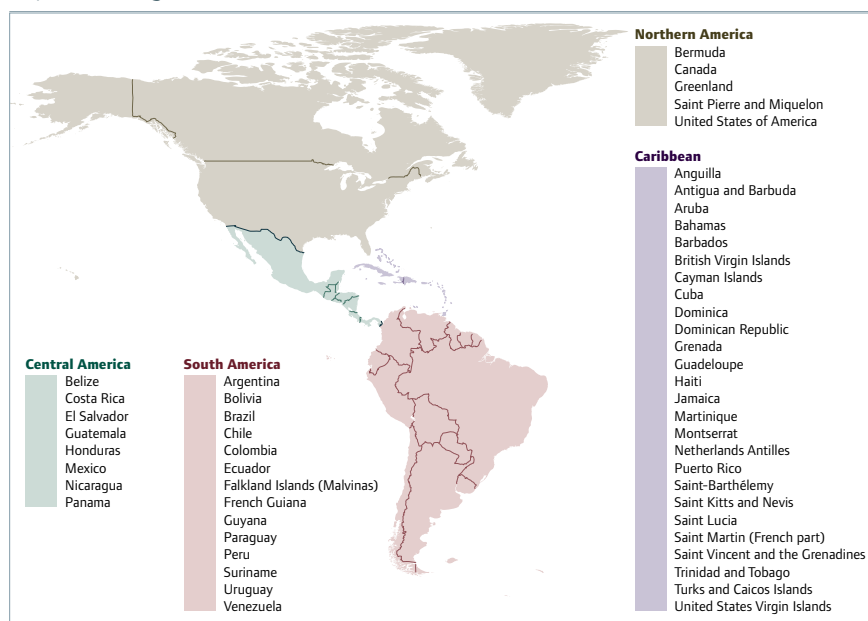


Table 4.9 Top ranked countries in the Americas

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	United States	0.8510	0.8644	2	4
2	Canada	0.8448	0.8172	3	7
3	Colombia	0.6125	0.5317	31	52
4	Chile	0.6014	0.5819	34	40
5	Uruguay	0.5848	0.5645	36	48
6	Barbados	0.5714	0.5667	40	46
7	Argentina	0.5467	0.5844	48	39
8	Antigua and Barbuda	0.5154	0.4485	55	96
9	Mexico	0.5150	0.5893	56	37
10	Brazil	0.5006	0.5679	61	45
	World average	0.4406	0.4514		

Barbados is the first country in the region to have an integrated single-sign-on service for its national portal. Single-sign-on services allow citizens greater ease and flexibility in performing necessary online tasks with the government.

Antigua and Barbuda saw the biggest increase in the global ranking by 41 positions to rank 55th globally. Cuba and Dominica also had their rankings increase significantly over the 2008 Survey by 15 and 11 positions respectively. Cuba is now ranked 96th and Dominica 105th globally.

The Dominican Republic, Trinidad and Tobago and Cuba led the region in the area of online services. Top scores in ministry sites were received by Education and Labour in the Dominican Republic along with the Ministry of Health in Cuba.

The Dominican Republic's Ministry of Labour offers key user services to citizens, including Emplateya.net, an employment seeking portal with polls and online form submissions and a related website, FlujoMigratorio, for tracking emigration and employment in Spain.

The national portal for Grenada integrates great design with social media elements that enable its citizens, especially youth, to share information on social networking platforms with the government.

The Ministry of Finance of Trinidad and Tobago has implemented a Web-based procurement tool, Finance.gov.tt, that allows suppliers to bid online for contracts to supply of goods or services.

### Central America

The region of Central America has regressed in relative terms since the 2008 Survey, when it scored higher above the world average. In the 2010 Survey, its e-government scoring falls below the world average. The vast majority of countries in the region received lower scores in the 2010 Survey as compared to the 2008 Survey. Mexico (0.5150) leads the region followed by Costa Rica (0.4749) and El Salvador (0.4700).

Mexico experienced the most significant drop in global rankings. It fell by 19 positions from the 2008 Survey to the 2010 Survey and is currently ranked 56th globally. The degeneration of Mexico's e-government is mainly attributed to the much lower score for online services, which dropped from 0.7057 to 0.4413. The following countries

also saw significant drops, with Costa Rica down by 12 positions, Guatemala by 13 positions and Belize by 13 positions.

Table 4.11 **E-government development in Central America**

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Mexico	0.5150	0.5893	56	37
Costa Rica	0.4749	0.5144	71	59
El Salvador	0.4700	0.4974	73	67
Panama	0.4619	0.4718	79	83
Honduras	0.4065	0.4048	107	110
Guatemala	0.3937	0.4283	112	99
Nicaragua	0.3630	0.3668	118	117
Belize	0.3513	0.4102	120	107
Sub-regional average	0.4295	0.4604		
World average	0.4406	0.4514		

### Northern America

The United States and Canada continue to score high in the 2010 Survey. The United States (0.8510) was ranked the second and Canada (0.8448) was ranked the third globally. The United States and Canada were also ranked the second and the third respectively in the online service index. Both countries have well-developed portals with a wide spectrum of e-services for their citizens. They have both created a favorable environment to encourage citizens to participate in decision-making around political issues and to provide feedback.

Table 4.12 **E-government development in Northern America**

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
United States	0.8510	0.8644	2	4
Canada	0.8448	0.8172	3	7
Sub-regional average	0.8479	0.8408		
World average	0.4406	0.4514		

Canada has a strong online presence with a national portal that offers quick access to government programmes and information on popular services. It links to Service Canada, a robust e-services portal for citizens, Canada Business for entrepreneurs and Canada International for Canadians living abroad. The national portal also has a 'My Government Account' feature that provides a



single point of access for a citizen to manage a personalized set of links to the information and services offered by the Government of Canada. A mobile wireless portal is being developed to provide news, directories and other information.

The national portal of the United States is a leader in e-government. The USA.gov homepage links to more than 100 online government services and transactions. A navigational tool bar organizes information in categories for citizens, business and non-profit organizations, government employees, and visitors to the country. It then breaks these categories down even further so users can quickly locate the information and services. In addition, the national portal also offers its general information in 88 languages with extensive online services for foreigners wishing to conduct business, work, study and travel in the United States. It also includes live personal assistance via 'Live Help/Web Chat'. The site also makes it very easy to connect and communicate with the government via social media tools such as YouTube, Twitter, Facebook and the 'Gov Gab Blog', where bloggers share tips and information from the Federal government and where citizens can comment and share their own experiences.

In response to the global economic crisis, the national portal also provides a link to Recovery.gov, which offers information and data on the current economic crisis, tracking of the recovery funding, and how citizens can benefit from it.

## South America

Colombia (0.6125) enjoys the highest global ranking in the region in the 2010 Survey, climbing by 21 positions from the 2008 Survey. It ranked higher than Chile, Argentina, Brazil and Uruguay. Chile (0.6014) and Uruguay (0.5848) stand second and third in the region.

The national portal of Colombia features a variety of online services, especially with the procedures and services section, which allows citizens to search by department or region. The site also provides a link to Programa Gobierno en Linea, a comprehensive and user-friendly information resource about e-government activities that is easy to navigate. Colombia's national website also features e-Ciudadano, an initiative on digital literacy through which citizens can take courses and become certified.

### Box 4.6 Panama's Primera Dama

#### Panama: The First Lady's website Primera Dama

The First Lady's website Primera Dama is making a considerable effort to support the poor and women. Her site can be browsed by a direct link from the national website and has a national campaign of 'No Violence Against Women'. In conjunction with the Ministry of Agricultural Development, a micro-credit initiative was implemented to support rural and indigenous women. The initiative, which is promoted on the First Lady's website, is geared to improving the economic activity in the community that is dedicated to domestic activities and production for food consumption.



<http://www.presidencia.gob.pa>

### Box 4.7 Guatemala e-procurement

#### Guatemala: E-procurement Website

Guatemala has well-organized e-procurement website linked directly from the national website as well as from most of the ministry websites. It provides information about the contracts and procurement system of the state, with comprehensive e-government features and services including registration with authentication and viewing of contracts awarded. It lists all opportunities for suppliers and products for buyers.



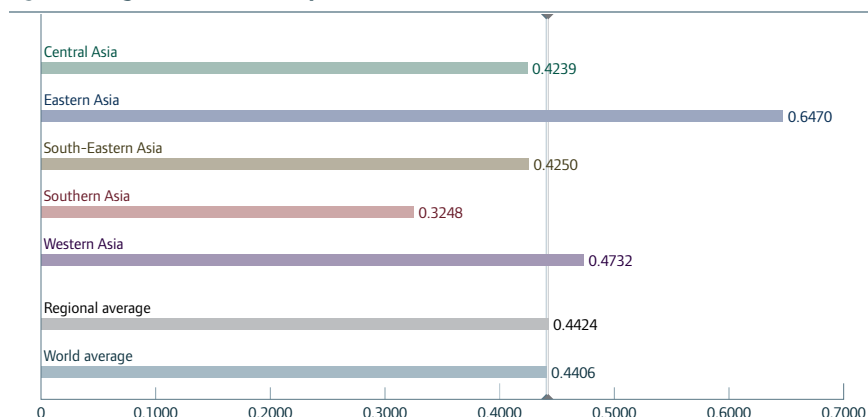
<http://www.guatecompras.gt/>

The website of the Ministry of Labour of Peru was the only ministry site in the region to offer a page, Revalora Perú, dedicated to unemployment in light of the global economic crisis. It explains the government's response and features a special programme on labour restructuring and government stimulus activities.

Table 4.13 E-government development in South America

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Colombia	0.6125	0.5317	31	52
Chile	0.6014	0.5819	34	40
Uruguay	0.5848	0.5645	36	48
Argentina	0.5467	0.5844	48	39
Brazil	0.5006	0.5679	61	45
Peru	0.4923	0.5252	63	55
Venezuela	0.4774	0.5095	70	62
Ecuador	0.4322	0.4840	95	75
Bolivia	0.4280	0.4867	98	72
Paraguay	0.4243	0.4654	101	88
Guyana	0.4140	0.4375	106	97
Suriname	0.3283	0.3472	127	123
Sub-regional average	0.4869	0.5072		
World average	0.4406	0.4514		

Figure 4.4 E-government development in Asia



Map 4.3 Sub-regions of Asia

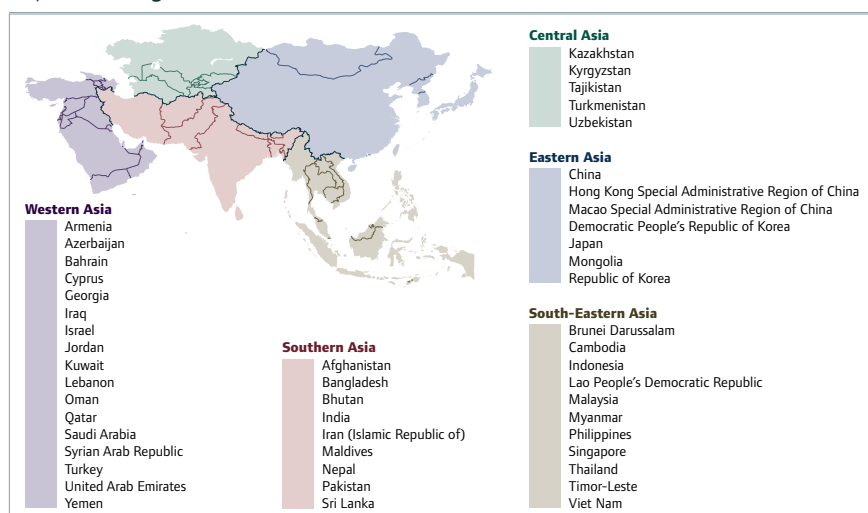


Table 4.14 Top ranked countries in Asia

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	Republic of Korea	0.8785	0.8317	1	6
2	Singapore	0.7476	0.7009	11	23
3	Bahrain	0.7363	0.5723	13	42
4	Japan	0.7152	0.7703	17	11
5	Israel	0.6552	0.7393	26	17
6	Malaysia	0.6101	0.6063	32	34
7	Cyprus	0.5705	0.6019	42	35
8	Kazakhstan	0.5578	0.4743	46	81
9	United Arab Emirates	0.5349	0.6301	49	32
10	Kuwait	0.5290	0.5202	50	57
	World average	0.4406	0.4514		

Uruguay offers customized online services through Mi Portal, a prominent link on the home page of the national website. Mi Portal offers strong online features organized by thematic areas for citizens, business and government.

Argentina's Ministry of Health provides an official page on the H1N1 flu virus with downloadable videos, informational pamphlets and links to virtual libraries. Argentina's Ministry of Labour dedicates sections of its homepage to special topics such as child labour, women in the workplace and war veterans.

Bolivia's Ministry of Health and Sports (Social Welfare) offers a one-stop portal at Promocion de la Salud that covers special topics ranging from gender violence to environmental health to disability.

### 4.2.3 E-government in Asia

The Asian region presents a mixed picture with Eastern Asia far exceeding the world average for e-government development while Southern Asia lags far behind, as illustrated in figure 4.4. This dichotomy also mirrors the income disparities between the two regions. Central and South-Eastern Asia are slightly lower than the world average, while Western Asia is above the world average.

Table 4.14 shows that the Republic of Korea, Singapore and Bahrain enjoy the top three rankings in the region. Five countries from Western Asia made the top 10 in the region. Eastern Asia and South-East Asia, each had two countries in the top 10, while Central Asia had one country in the top 10.

### Central Asia

Table 4.15 E-government development in Central Asia

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Kazakhstan	0.5578	0.4743	46	81
Uzbekistan	0.4498	0.4057	87	109
Kyrgyzstan	0.4417	0.4195	91	102
Tajikistan	0.3477	0.3150	122	132
Turkmenistan	0.3226	0.3262	130	128
Sub-regional average	0.4239	0.3881		
World average	0.4406	0.4514		

Central Asia has made the most significant improvement as a region from the 2008 Survey, with Kazakhstan (0.5578) making one of the most dramatic leaps in the 2010 Survey to continue

to lead the region. Uzbekistan, Kyrgyzstan and Tajikistan have all improved their national and ministry websites.

Among national portals, Kyrgyzstan received the highest ranking in the region. The national portal includes transactional aspects and was is strong on citizen engagement.

### Eastern Asia

The Republic of Korea (0.8785) was the highest ranking country in the 2010 Survey and its national portal also received the highest ranking. It scored particularly high in providing e-services and tools for citizen engagement. The ministries of health, education and social welfare scored the highest among ministries.

Table 4.16 E-government development in Eastern Asia

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Republic of Korea	0.8785	0.8317	1	6
Japan	0.7152	0.7703	17	11
Mongolia	0.5243	0.4735	53	82
China	0.4700	0.5017	72	65
Democratic People's Republic of Korea	...	...	...	...
Sub-regional average	0.6470	0.6443		
World average	0.4406	0.4514		

Japan (0.7152) ranked second in the region in the 2010 Survey, dropping down one place from the previous survey. Mongolia (0.5243) gained 29 positions to be ranked 53rd globally, a dramatic rise due primarily by efforts to enhance its national portal and ministry websites to offer more e-services available and more on-line content.

China fell slightly in the 2010 Survey and the Democratic People's Republic of Korea has a very limited Web presence as in the 2008 Survey.

The national portal of Japan was ranked the second highest in Asia. The portal is rich in e-information and content and provides extensive links to ministries and key government resources.

The Ministry of Finance of Mongolia scored the highest in the region for its category. Its portal provides comprehensive e-services and opportunities for citizens to provide feedback.

The Ministry of Finance of Mongolia provides a portal for e-procurement where users can register for online bids, sort through different types of tenders, see upcoming tenders, and find out results of previous tenders. E-Procurement is available in the Mongolian and English languages. There is a newsletter and additional information regarding legislation, bidding and guidelines.

### Southern Asia

Table 4.17 E-government development in Southern Asia

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Maldives	0.4392	0.4491	92	95
Iran (Islamic Rep. of)	0.4234	0.4067	102	108
Sri Lanka	0.3995	0.4244	111	101
India	0.3567	0.3814	119	113
Bangladesh	0.3028	0.2936	134	142
Pakistan	0.2755	0.3160	146	131
Bhutan	0.2598	0.3074	152	134
Nepal	0.2568	0.2725	153	150
Afghanistan	0.2098	0.2048	168	167
Sub-regional average	0.3248	0.3395		
World average	0.4406	0.4514		

In this region, most portals and websites have remained stagnant since the 2008 Survey in terms of developing new features. As a result, the region as a whole has regressed in the 2010 Survey and remains far below the world average. Maldives (0.4392) continues to lead the region because it gained the highest scores for infrastructure and education indices. Nevertheless, its online services received very low scores and made very limited progress in overall e-government development. Iran (0.4234) and Bangladesh (0.3028) are the two

#### Box 4.8 Kazakhstan – putting citizens first

##### Kazakhstan: User-friendly site

The national website of Kazakhstan is a user-friendly one-stop-shop that allows a one click access to E-Gov.kz, the country's e-government portal, which offers a comprehensive selection of e-services for citizens. The portal also provides information on the national e-government development programme with 17 different projects aimed at improving services to the citizen in a convenient (online) and cost-effective manner. E-services include e-payments, e-documents, e-registrations, e-signatures, e-forms, etc. The portal also contains videos and educational programmes for children, online discussions and consultations, and other citizen engagement tools. This distinctive approach is intended to enhance the role of the government and facilitate building citizens' trust in government authorities.



E-Gov.kz

#### Box 4.9 Japanese portal provides access to statistical information

##### Japan: Statistical information portals

Japan's E-Stat portal is directly accessible and prominently featured on the extensive national e-government portal. A user-friendly interface provides users with options to gain easy access to official Japanese statistics, learn about meta data, understand statistical systems and study statistics. There is also a search option to find further statistics by ministries and government agencies. Users can securely register to receive email updates on statistics and have the option to subscribe to RSS Feeds. A mobile version of the portal is also available.



<http://www.e-stat.go.jp/>  
<http://www.e-gov.go.jp/>  
<http://e-stat.go.jp/SG1/estat/mbTopE.do/>

#### Box 4.10 Republic of Korea's national portal

##### Republic of Korea: National portals

The Republic of Korea's national portal is exceptional in its design and provision of features to its citizens. It is an integrated system allowing citizens easy access to government information and contains features for mobile alerts, forms, transactions and online consultation. For e-participation, users are connected to ePeople, a single online service that integrates the e-services of all government agencies. The aim of ePeople is to improve the transparency of government administration, improve corruption reporting and engage citizens through petitions, proposals and policy discussions. Users are connected to a secure login portal for all e-government transactions and form submissions.



<http://www.korea.go.kr/>  
<http://www.epeople.go.kr/>  
<http://egov.go.kr/>

#### Box 4.11 Singapore spearheads development of mobile services

##### Singapore: Mobile government

Singapore's mobile cellular market is characterized by energy and innovation with some 6.5 million mobile devices in use for a penetration rate of 136 percent. Mobile service delivery is a strategic initiative of the country's iGov2010 master plan. Citizens and businesses have expressed a high level of satisfaction and enjoy the convenience of accessing more than 300 public services through mobile technology. The next wave of mobile services planned by the Singapore Infocomm Development Authority will support even more 24/7 transactions, including some that use near field technology to enable payment of train and bus fares, redemption of e-coupons, and even the opening of doors with the tap of a phone against a wireless reader. Commercial relationships between mobile cellular companies and network providers help ensure availability of the requisite technology.



<http://www.ecitizen.gov.sg/mobile/>

exceptions, both having significantly improved their government development scores and global rankings in 2010 Survey.

Among national portals in the region, India has the highest ranking portal with the highest online services score. It has the most e-services and tools for citizen engagement in the region.

#### South-Eastern Asia

The national portal of Singapore has an organized and effective online approach to providing information to its users through portals and micro-sites. Each main tab directs its site visitors to portals by user group. Businesses access EnterpriseOne, a portal with e-services and information tailored to businesses. Citizens and residents are directed to E-Citizen, an e-services portal that features the personalized single sign-on site SingPass for payment services and mobile services.

Table 4.18 E-government development in South-Eastern Asia

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Singapore	0.7476	0.7009	11	23
Malaysia	0.6101	0.6063	32	34
Brunei Darussalam	0.4796	0.4667	68	87
Thailand	0.4653	0.5031	76	64
Philippines	0.4637	0.5001	78	66
Viet Nam	0.4454	0.4558	90	91
Indonesia	0.4026	0.4107	109	106
Cambodia	0.2878	0.2989	140	139
Myanmar	0.2818	0.2922	141	144
Lao People's Democratic Republic	0.2637	0.2383	151	156
Timor-Leste	0.2273	0.2462	162	155
Sub-regional average	0.4250	0.4290		
World average	0.4406	0.4514		

#### Box 4.12 Malaysia – utilizing mobile technology

##### Malaysia: mySMS system

Malaysia's mySMS system won the 2009 APICTA award given to projects of creativity and excellence in ICT in Malaysia. The system enables users to receive information on demand, documents on demand, and broadcast information from government agencies, including emergency information to basic notifications. The system also allows users to provide complaints to government agencies.

## Western Asia

The majority of countries in this region have witnessed noticeable changes in their respective rankings. Bahrain (0.7363) has emerged as the new leader in the region.

Launched in early 2009, Bahrain's e-government portal system provides its citizens with a wealth of information, e-services and links to national and ministry sites. 'E-Government for a Better Life' is the motto for the government's initiative. E-participation and citizen engagement features are accessible throughout the portal sites. The government publishes a Customer Charter available in the page footer.

Table 4.19 **E-government development in Western Asia**

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Bahrain	0.7363	0.5723	13	42
Israel	0.6552	0.7393	26	17
Cyprus	0.5705	0.6019	42	35
United Arab Emirates	0.5349	0.6301	49	32
Kuwait	0.5290	0.5202	50	57
Jordan	0.5278	0.5480	51	50
Saudi Arabia	0.5142	0.4935	58	70
Qatar	0.4928	0.5314	62	53
Turkey	0.4780	0.4834	69	76
Oman	0.4576	0.4691	82	84
Azerbaijan	0.4571	0.4609	83	89
Lebanon	0.4388	0.4840	93	74
Georgia	0.4248	0.4598	100	90
Armenia	0.4025	0.4182	110	103
Syrian Arab Republic	0.3103	0.3614	133	119
Iraq	0.2996	0.2690	136	151
Yemen	0.2154	0.2142	164	164
Sub-regional average	0.4732	0.4857		
World average	0.4406	0.4514		

Israel (0.6552), Cyprus (0.5705) and United Arab Emirates (0.5349), were ranked as the second, the third and the fourth in the region. Although Israel scored lower in the 2010 Survey, its Ministries of Finance and Labour scored the highest in the region. The national portal of Cyprus scored high within the region; it provided e-tools to empower citizens to dialogue with the government.

Iraq, Oman, Saudi Arabia and Turkey improved their rankings in the 2010 Survey, while Azerbaijan, Jordan, Kuwait, Lebanon and Syria dropped to lower positions.

Oman's Ministry of Education promotes e-learning by having its own e-learning system that features virtual classrooms and a self-learning system. Communication can occur via audio, video and text. The Ministry also employs an SMS feature for parents. Through Oman Mobile, the Ministry has set up a system that allows parents to follow their children's school performance on mobile phones. Parents can track student attendance, receive calls to visit the school, learn about temporary suspensions, pull student ID, and receive grade reports.

Saudi Arabia's national portal features links to 215 e-services. While not a single-sign-on system, the electronic portal easily connects its citizens to the online services of various government agencies for such purposes as obtaining personal documents, filing complaints, utilizing business services and paying utilities. In conjunction with this directory of e-services is SADAD, an e-payment system through which the Kingdom of Saudi Arabia facilitates and streamlines bill payment transactions.

## 4.2.4 E-government in Europe

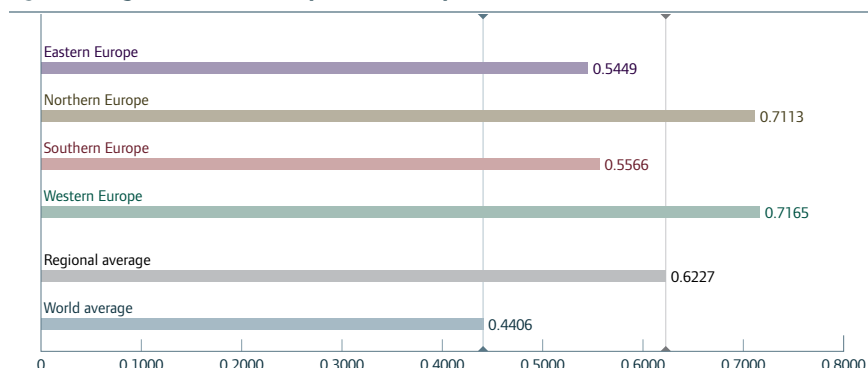
All European sub-regions excel in the e-government development index and achieve high scores far above world average. Drawing on the advantages of the well-developed telecommunication infrastructure and high human resources capacity, Western and Northern Europe perform especially well in e-government development, followed by Southern and Eastern Europe. Many countries in Europe are high-income developed countries, and this advantage is reflected in the ranking shown in figure 4.5.

Table 4.20 **Top ranked countries in Europe**

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	United Kingdom	0.8147	0.7872	4	10
2	Netherlands	0.8097	0.8631	5	5
3	Norway	0.8020	0.8921	6	3
4	Denmark	0.7872	0.9134	7	2
5	Spain	0.7516	0.7228	9	20
6	France	0.7510	0.8038	10	9
7	Sweden	0.7474	0.9157	12	1
8	Germany	0.7309	0.7136	15	22
9	Belgium	0.7225	0.6779	16	24
10	Switzerland	0.7136	0.7626	18	12
	World average	0.4406	0.4514		



Figure 4.5 E-government development in Europe



Map 4.4 Sub-regions of Europe

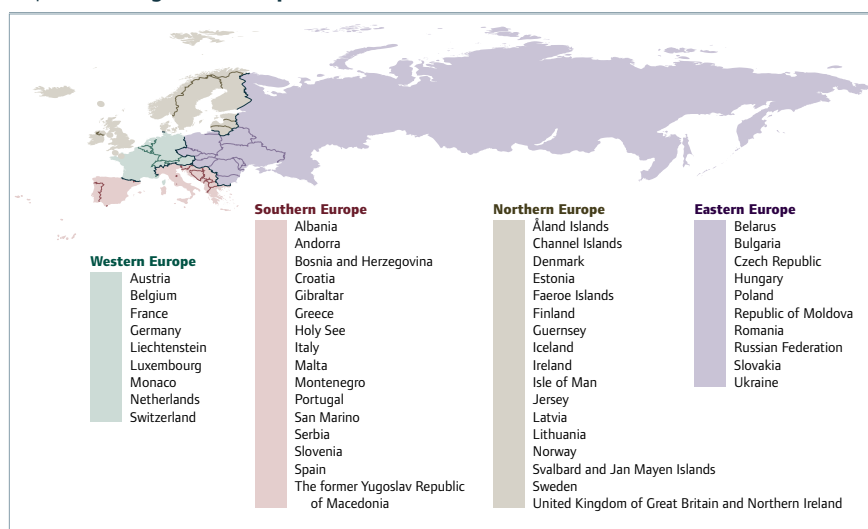


Table 4.20 shows that the United Kingdom emerged as the new leader in Europe in the 2010 Survey, followed by the Netherlands. In the top 10 list, Western Europe had five countries, Northern Europe had four countries, Southern Europe had one country and there were no countries from Eastern Europe.

#### Eastern Europe

The region as a whole has not changed much since the 2008 Survey. In the 2010 Survey, Hungary (0.6315) has moved ahead of the Czech Republic (0.6060) to lead the region. The national portal of Hungary was ranked the highest in the region. Poland and Ukraine moved down in the rankings. The Republic of Moldova (0.4611) moved up 13 positions to be ranked 80th globally.

Table 4.21 E-government development in Eastern Europe

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Hungary	0.6315	0.6494	27	30
Czech Republic	0.6060	0.6696	33	25
Slovakia	0.5639	0.5889	43	38
Bulgaria	0.5590	0.5719	44	43
Poland	0.5582	0.6134	45	33
Romania	0.5479	0.5383	47	51
Ukraine	0.5181	0.5728	54	41
Russian Federation	0.5136	0.5120	59	60
Belarus	0.4900	0.5213	64	56
Republic of Moldova	0.4611	0.4510	80	93
Sub-regional average	0.5449	0.5689		
World average	0.4406	0.4514		

The website of the Ministry of Finance of Ukraine scored the highest among ministries based on its content and citizen engagement, although e-services were limited. The Ministry of Finance of Romania also scored high for the region due to the availability of a number of e-services as well as extensive content.

#### Northern Europe

Table 4.22 E-government development in Northern Europe

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
United Kingdom	0.8147	0.7872	4	10
Norway	0.8020	0.8921	6	3
Denmark	0.7872	0.9134	7	2
Sweden	0.7474	0.9157	12	1
Finland	0.6967	0.7488	19	15
Estonia	0.6965	0.7600	20	13
Ireland	0.6866	0.7296	21	19
Iceland	0.6697	0.7176	22	21
Lithuania	0.6295	0.6617	28	28
Latvia	0.5826	0.5944	37	36
Sub-regional average	0.7113	0.7721		
World average	0.4406	0.4514		

The United Kingdom (0.8147) enjoys the highest ranking in Europe. The national portal of the United Kingdom was ranked the third in the 2010 Survey. The Scandinavian countries as a whole scored lower. Sweden dropped from first position in the 2008 Survey to the 12th in global ranking in the 2010 Survey, which is mainly attributed to the regression of its online services.

With the exception of the United Kingdom, all the countries in the region had lower e-government indexes in the 2010 Survey.

The United Kingdom offers a comprehensive and user-friendly national portal. The home page features 16 categories of information most often accessed, e.g. Motoring, Parents, Environment & Greener Living, Disabled, Money, Tax & Benefits, Government & Citizens' Rights, Health & Wellbeing and Crime & Justice. A tab on the top navigation tool bar titled 'Do It Online' also links to the 16 categories, and specifically to all of the transactions that can be conducted online within these categories. Citizens can text in a key word and receive information via mobile phone on job opportunities, public transport delays, train schedules, nearest passport or doctors offices, emergency and terror alerts and many other services. The United Kingdom's Web network also features a wide range of public consultations, mostly available at specific ministry sites; model-practice portals for public tenders and contracts; and e-services at the Government Gateway.

The website of the Ministry of Finance of Norway was ranked highest among ministries in the region in the 2010 Survey.

## Southern Europe

Table 4.23 E-government development in Southern Europe

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Spain	0.7516	0.7228	9	20
Slovenia	0.6243	0.6681	29	26
Malta	0.6129	0.6582	30	29
Croatia	0.5858	0.5650	35	47
Italy	0.5800	0.6680	38	27
Portugal	0.5787	0.6479	39	31
Greece	0.5708	0.5718	41	44
TFYR Macedonia	0.5261	0.4866	52	73
Andorra	0.5148	0.5175	57	58
Montenegro	0.5101	0.4282	60	100
Bosnia and Herzegovina	0.4698	0.4509	74	94
Serbia	0.4585	0.4828	81	77
Albania	0.4519	0.4670	85	86
San Marino	...	...	...	...
Sub-regional average	0.5566	0.5642		
World average	0.4406	0.4514		

Spain (0.7516) continues to lead the region and moved up in the global ranking in the 2010 Survey. Spain enjoys a well-developed online e-services portal, Red.es, with clear statements to citizens about its purpose and mission, plus services from its national portal. Slovenia (0.6243) and Malta (0.6129) were ranked the second and the third in the region. The former Yugoslav Republic of Macedonia, Montenegro, and Bosnia and Herzegovina improved the most in the region in the 2010 Survey,

### Box 4.13 Belgium's electronic identification card

#### Belgium: My Belgium national portal

The national portal of Belgium has a link called My Belgium that is the single point of contact to government information and services. Over 9 million Belgians have eID cards that allow them to download authenticated certificates from their personal file from the MyBelgium portal.



<http://www.belgium.be>  
<http://www.mybelgium.be>

### Box 4.14 Austria – support for gender equality

#### Austria: Gender equality website

Austria has a website that supports gender equality. It provides information about current government initiatives such as 'Equal pay and revenue transparency for women' and the 'New Child' law. The website promotes a programme provides parents with additional income during the first 14 months of the child's life, supporting mothers, fathers and single parents during difficult economic times.



<http://www.frauen.bka.gv.at>

### Box 4.15 Germany – applying e-government tools to educate children

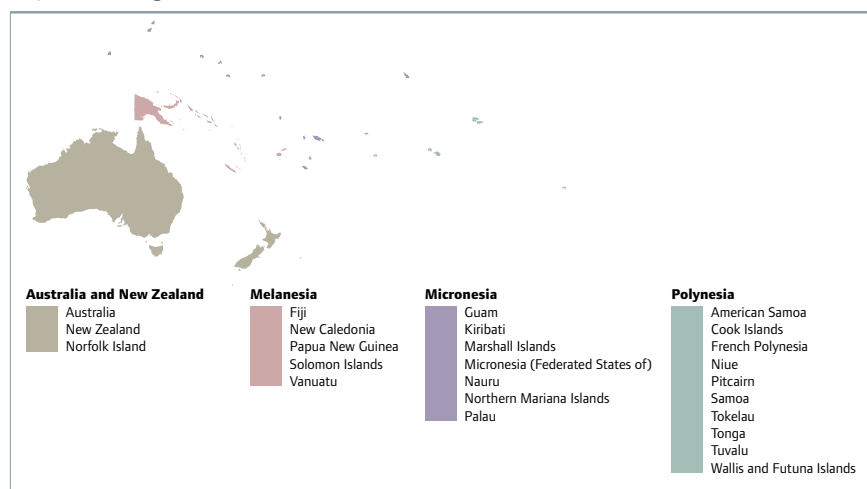
#### Germany: Gender equality website

The national portal of Germany has a link off the homepage to a website for children to learn how their government works, Regieren-kapieren. It has tabs for interactive features titled such as 'discover', 'games' and 'questions' and a daily news section. It captures the children's attention and gives them a better understanding of the process of government.



<http://www.bundesregierung.de/>  
<http://www.regierenkapieren.de/>

Map 4.5 Sub-regions of Oceania



with the former Yugoslav Republic of Macedonia gaining 21 positions to be ranked 52nd globally, Montenegro gaining 40 positions to be in 60th position and Bosnia and Herzegovina gaining 20 positions to be 74th. These changes were attributable to the improvement in telecommunication infrastructure and online services.

### Western Europe

The Netherlands (0.8097) continues to lead the region in the global rankings of the 2010 Survey, with France (0.7510) and Germany (0.7309) ranked second and the third respectively. Liechtenstein saw the most significant progress and was ranked 23rd globally in the 2010 Survey, which could be attributed to its efforts to improve online services.

Table 4.24 E-government development in Western Europe

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Netherlands	0.8097	0.8631	5	5
France	0.7510	0.8038	10	9
Germany	0.7309	0.7136	15	22
Belgium	0.7225	0.6779	16	24
Switzerland	0.7136	0.7626	18	12
Liechtenstein	0.6694	0.5486	23	49
Austria	0.6679	0.7428	24	16
Luxembourg	0.6672	0.7512	25	14
Monaco	...	...	...	...
Sub-regional average	0.7165	0.7329		
World average	0.4406	0.4514		

The national portal of Portugal is informational and integrated and provides a clear gateway to services for citizens, including e-services. The site provides link to all ministries, including links to various services for citizens, such as Emprego 2009 for access to educational and professional resources.

Montenegro combined effective graphic design with efficient navigation for a visually related series of portals and websites, including those of the national government and all of its ministries. It worked well as a result of investment in back office integration. The various sites polling users about what they would like to see changed or improved on their government's websites.

The Education Ministry of Serbia had one of the best online resources for students including information on student loans and scholarships, foreign government and foundations scholarships, international competitions, and Republic of Serbia Foundation Scholarships. Students can buy their books online and access their school records.

The website of the Ministry of Health of Belgium received the second highest ranking among that of the health ministries in the 2010 Survey based on the excellent provision of e-services to citizens. The country's Ministry of Labour has a website with a notable usability/user experience. For example, when a user searches on its site, any results that are associated with an e-government feature or service will be marked with the letter 'e' in the form of a red icon next to the search results, cuing the user to click.

The national portal of the Netherlands offers a gateway to the municipalities of the Netherlands. It also harbors a substantive resource for elderly and disabled individuals wishing to locate online government services.

### 4.2.5 E-government in Oceania

Australia (0.7863) continues to lead the Oceania region with New Zealand (0.7311) in second position. Among the island states in the Pacific, Palau (0.4189) and Fiji (0.3925) are the leading countries in e-government development.

The extensive national portal for Australia helps citizens to navigate to key features, government initiatives, services and information. The website prominently features the Social Inclusion website with the

vision of society in which all Australians feel valued and are equipped with the opportunity to participate fully in society. New features on the site include State, Territory and Local Government Search within the national site, smart forms for enrolling to vote and making complaints, and new e-consultation features for public consultation, blogs and a feature called Bright Ideas where citizens can provide new ideas and perspectives on a specific or any subject.

Table 4.25 E-government development in Oceania

Country	E-government development index value		World e-government development ranking	
	2010	2008	2010	2008
Australia	0.7863	0.8108	8	8
New Zealand	0.7311	0.7392	14	18
Palau	0.4189	0.0000	103	...
Fiji	0.3925	0.4156	113	105
Samoa	0.3742	0.3761	115	115
Tonga	0.3697	0.3950	116	112
Vanuatu	0.2521	0.2510	155	154
Solomon Islands	0.2445	0.2748	156	147
Papua New Guinea	0.2043	0.2078	171	166
Kiribati	...	...	...	...
Marshall Islands	...	...	...	...
Micronesia (Federated States of)	...	...	...	...
Nauru	...	...	...	...
Tuvalu	...	...	...	...
Sub-regional average	0.4193	0.4338		
World average	0.4406	0.4514		

### 4.3 Economic groupings

Table 4.26 illustrates the top 25 developing countries in the 2010 Survey. Many developing countries have been investing in streamlining the national and ministry portals and websites to better offer more e-services and more actively engage citizens in dialogues with government. The digital divide between the developed countries and developing countries is gradually closing in the e-government arena.

Table 4.27 provides a list of the least developed countries, which face severe constraints to e-government development.

Finally, some countries do not appear in the ranking of the 2010 United Nations E-Government Survey. The Survey lacked data in significant areas for these countries, which made it impossible to either construct an index on infrastructure or human resources capacity, or both. Tables in the

Table 4.26 Top ranked developing countries

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	Republic of Korea	0.8785	0.8317	1	6
2	Singapore	0.7476	0.7009	11	23
3	Bahrain	0.7363	0.5723	13	42
4	Israel	0.6552	0.7393	26	17
5	Colombia	0.6125	0.5317	31	52
6	Malaysia	0.6101	0.6063	32	34
7	Chile	0.6014	0.5819	34	40
8	Uruguay	0.5848	0.5645	36	48
9	Barbados	0.5714	0.5667	40	46
10	Cyprus	0.5705	0.6019	42	35
11	Kazakhstan	0.5578	0.4743	46	81
12	Argentina	0.5467	0.5844	48	39
13	United Arab Emirates	0.5349	0.6301	49	32
14	Kuwait	0.5290	0.5202	50	57
15	Jordan	0.5278	0.5480	51	50
16	Mongolia	0.5243	0.4735	53	82
17	Ukraine	0.5181	0.5728	54	41
18	Antigua and Barbuda	0.5154	0.4485	55	96
19	Mexico	0.5150	0.5893	56	37
20	Saudi Arabia	0.5142	0.4935	58	70
21	Russian Federation	0.5136	0.5120	59	60
22	Brazil	0.5006	0.5679	61	45
23	Qatar	0.4928	0.5314	62	53
24	Peru	0.4923	0.5252	63	55
25	Belarus	0.4900	0.5213	64	56
	World average	0.4406	0.4514		

Annex provide the raw scores for the telecommunication infrastructure, human capacity and online service indexes of these countries.

A number of countries are engaged in the development of regional e-government strategies, as illustrated by the examples in box 4.16.

### 4.4 Progress in online service provision

The number of e-services available on government websites continues to grow by leaps and bounds. Every year it is evident that more and more e-services are put into operation in government websites. A country's strength in online service provision is measured against four benchmarks.

- Does the national government provide basic information services online?
- Does the national government use multimedia technology and promote two-way exchanges with citizens?

Table 4.27 **E-government development in least developed countries<sup>1</sup>**

Rank	Country	E-government development index value		World e-government development ranking	
		2010	2008	2010	2008
1	Maldives	0.4392	0.4491	92	95
2	Samoa	0.3742	0.3761	115	115
3	Lesotho	0.3512	0.3805	121	114
4	São Tomé and Príncipe	0.3258	0.3215	128	130
5	Angola	0.3110	0.3328	132	127
6	Bangladesh	0.3028	0.2936	134	142
7	United Republic of Tanzania	0.2926	0.2929	137	143
8	Equatorial Guinea	0.2902	0.2890	138	145
9	Madagascar	0.2890	0.3065	139	135
10	Cambodia	0.2878	0.2989	140	139
11	Myanmar	0.2818	0.2922	141	144
12	Uganda	0.2812	0.3133	142	133
13	Zambia	0.2810	0.2266	143	158
14	Rwanda	0.2749	0.2941	148	141
15	Lao People's Democratic Republic	0.2637	0.2383	151	156
16	Bhutan	0.2598	0.3074	152	134
17	Nepal	0.2568	0.2725	153	150
18	Sudan	0.2542	0.2186	154	161
19	Vanuatu	0.2521	0.2510	155	154
20	Solomon Islands	0.2445	0.2748	156	147
21	Mauritania	0.2359	0.2028	157	168
22	Democratic Republic of the Congo	0.2357	0.2177	158	162
23	Malawi	0.2357	0.2878	159	146
24	Comoros	0.2327	0.1896	160	170
25	Mozambique	0.2288	0.2559	161	152
26	Timor-Leste	0.2273	0.2462	162	155
27	Senegal	0.2241	0.2531	163	153
28	Yemen	0.2154	0.2142	164	164
29	Togo	0.2150	0.2191	165	160
30	Liberia	0.2133	0.2170	166	163
31	Gambia	0.2117	0.2253	167	159
32	Afghanistan	0.2098	0.2048	168	167
33	Haiti	0.2074	0.2097	169	165
34	Djibouti	0.2059	0.2279	170	157
35	Ethiopia	0.2033	0.1857	172	172
36	Benin	0.2017	0.1860	173	171
37	Burundi	0.2014	0.1780	174	174
38	Eritrea	0.1859	0.1965	175	169
39	Mali	0.1815	0.1591	176	175
40	Sierra Leone	0.1697	0.1463	177	178
41	Burkina Faso	0.1587	0.1542	178	176
42	Guinea-Bissau	0.1561	0.1521	179	177
43	Guinea	0.1426	0.1402	180	180
44	Central African Republic	0.1399	0.1412	181	179
45	Chad	0.1235	0.1047	182	182
46	Niger	0.1098	0.1142	183	181
47	Kiribati	...	...	...	...
48	Somalia	...	...	...	...
49	Tuvalu	...	...	...	...
	World average	0.4406	0.4514		

- Does the national government use the Internet to deliver public services and solicit occasional input on matters of public interest?
- Does the national government connect public service functions and routinely consult with citizens on matters of public policy?

If there is clear evidence that a country does all four of these things well, and therefore has established a digital foundation for citizen empowerment and inclusion, then it will be highly placed in the online service index.

Overall, the bar for online service has shifted up and the global index average is down in the 2010 Survey as compared to 2008. The present Survey gives more weight to more advanced stages of online development, e.g. availability of transactional services and promotion of the connected approach to e-government. Half of the total available points for online services are assigned to these stages. Specifically, the survey instrument allocates 68 points to characteristics of an emerging online presence (16.9 percent), 116 points to an enhanced online presence (28.8 percent), 169 points to a transactional presence (41.9 percent) and 50 points to a connected presence (12.4 percent) for a maximum possible score of 403.

#### 4.4.1 How governments rank in online services

First position in online services is held by the Republic of Korea (1.0000), followed by the United States (0.9365) and Canada (0.8825). Several of the top-ranked countries in 2010, as seen in table 4.28, are newcomers or have otherwise made significant gains in the last two years. Notable climbers include Bahrain, Chile, Colombia, Singapore and the United Kingdom, which have joined the world's top performers in online service development.

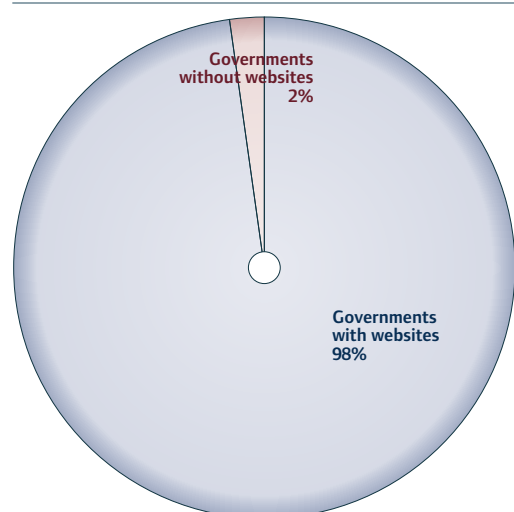
Growth of online services is especially strong in the case of middle-income countries. In 2010, middle-income countries accounted for four positions among the top 10 in the online service development index, and 14 positions among the top 35 countries.

A country's strength in online service provision correlates positively with its use of new technology such the emerging tools for social networking. The 2010 Survey put greater emphasis on online service provision and networking with citizens,



engaging and empowering them to be part of the governance process. Social networking tools enable governments to consult with citizens and expand opportunities for participation in decision-making processes. They can be used to garner feedback and opinions and to elicit support for public policy. To engage citizens, more countries have developed sites in the social networking arena and more are in the process of doing so.

Figure 4.6 **Nearly all governments have websites**



Some low-income countries are lagging far behind the world trend towards more and better e-government development. Some countries have no national portal or ministry websites for education, finance, health, labour and social services. Consequently, these countries receive a score of zero for the online service index. Countries with no online presence include Central African Republic, Somalia and Swaziland. These countries could not be ranked for online services development because they had no government websites. However, Central African Republic and Swaziland received an e-government development score because the country had sufficient data to calculate the indexes for telecommunications infrastructure and human capacity.

Sometimes e-government development can change quickly. The 2008 Survey reported that Zambia had no online presence and yet by the 2010 Survey the country's national sites were readily available and easily assessed.

Table 4.28 **Top 20 countries in online service development**

Rank	Country	Online service index value	Rank	Country	Online service index value
1	Republic of Korea	1.0000	11	France	0.6825
2	United States	0.9365	12	Netherlands	0.6794
3	Canada	0.8825	13	Denmark	0.6730
4	United Kingdom	0.7746	14	Japan	0.6730
5	Australia	0.7651	15	New Zealand	0.6381
6	Spain	0.7651	16	Malaysia	0.6317
7	Norway	0.7365	17	Belgium	0.6254
8	Bahrain	0.7302	18	Chile	0.6095
9	Colombia	0.7111	19	Israel	0.5841
10	Singapore	0.6857	20	Mongolia	0.5556

#### 4.4.2 About the services governments provide online

An increasing number of governments are endeavouring to meet the needs of the citizens by providing more online content and e-services and by creating a level of online dialogue that was not in place even a few years ago, according to the 2010 Survey. Portals are becoming more integrated and streamlined. It is easier than ever for citizens to find information and services online. This is especially true in developed and middle-income countries. Least developed countries are starting to incorporate many of the online tools that developed and middle-income countries now use, including videos and social networking tools. Only a few countries are able to offer many secure transactions online, however, although the trend is toward more e-forms and e-payments.

#### Box 4.16 Regional e-government strategies

Ministers responsible for e-government policy in the European Union issued a "Ministerial Declaration on e-Government" in November 2009 that shared a common vision, objectives and implementation approach for 2011-2015.

The Persian Gulf region has developed e-government standards and structures that are implemented throughout the region. The countries in the Gulf Cooperative Council are working together and sharing their e-government experiences to advance the region as a whole. All GCC countries were represented at a regional e-government conference in December 2009 in Oman. Awards were presented for innovative e-government programmes, services and solutions in the region.

African Ministers confirmed their willingness to promote inter-governmental cooperation in having common frameworks for e-Government regional development at a meeting in Mexico in September 2009. In February 2010, ICT will be the focus of the Summit of the African Union, with the theme 'Information and Communication Technologies in Africa: Challenges and Prospects for Development.'

A draft regional Caribbean e-Government strategy 2010-2014 was prepared in 2009 with the active participation of senior e-government representatives of Caribbean States and UNDESA support. It produced by Caribbean Centre for Development Administration (CARICAD), an agency of CARICOM. This strategy contains a consensus on e-government vision, goals, strategic initiatives, immediate outcomes and implementation plan for Caribbean countries.

The International Telecommunication Union (ITU) is planning to organize a series of regional summits, strategies and products, including the Arab States and the Americas. The effort is part of its 'Connect the World by 2015 initiative'.

Ninety-eight percent of countries have some presence on the Web, either by having a national portal or ministry website, as illustrated in figure 4.6. This number has not changed since 2008.

Certain features are common across many websites. Table 4.29 reveals that most government websites have a section for archived information and a section called ‘What’s New’. These features enable users to find information on past activities that are no longer highlighted on the website and encourage users to browse updated information. In contrast, only 44 percent of governments have a section that provides ready answers to frequently asked questions (FAQ). The use of FAQs can reduce the amount of time and human resources devoted to public inquiry functions, and improve public perception that the government is responsive to citizens’ concerns.

Table 4.29 **Characteristics of an emerging online presence**

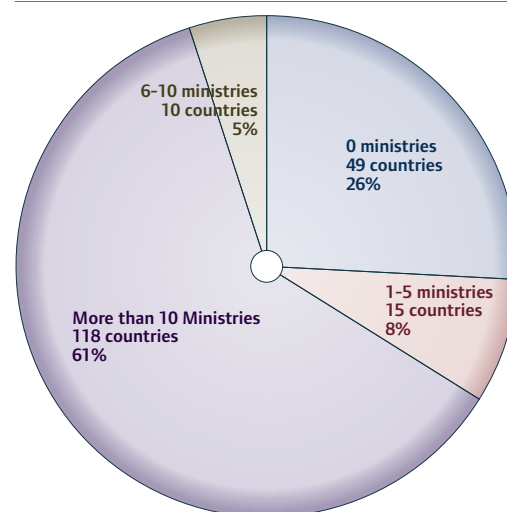
Feature	Number of countries	Percent
What’s new?	156	81
Frequently asked questions	85	44
Archived information	166	86

Most national portals have direct links to their respective ministries. The 2010 Survey finds that 61 percent of national portals contain links to more than 10 ministry websites, as illustrated in figure 4.7. These links allow citizens visiting a national portal to link quickly and directly to the information and services offered by a particular ministry, avoiding separate searches. They can simply go to the national homepage and access the ministry websites.

Figure 4.7 also shows that one quarter of national portals do not have links to any ministries, which means that they are either completely segregated from the websites of ministries, or the ministries in these

countries do not have websites at all. Citizens visiting national portals with links to only five or less ministries in their homepages must search outside for information that should be readily accessible. Ideally, the homepage of a country’s national portal should have links to all ministry and government agency websites.

Figure 4.7 **Number of ministries linked to a national portal**



Site maps can be found on slightly over 50 percent of national portals, as per table 4.30. This very useful feature helps citizens to find pages on the website without having to guess where information might be found. Links to other public sector services are provided on 67 percent of national portals, which makes them a one-stop shop for information and services.

Table 4.30 **Site maps and linkages from national portals**

Feature	Number of countries	Percent
Site map is available	102	53
Links between national home pages and ministries/departments	143	74
Links between national home page and public sector services	129	67

More than 50 percent of ministry websites have site maps, help or FAQs available or are integrated with the national portal, as shown in figure 4.8. Ministries of finance are more likely than other ministries to be integrated with the national portal and to include a site map.

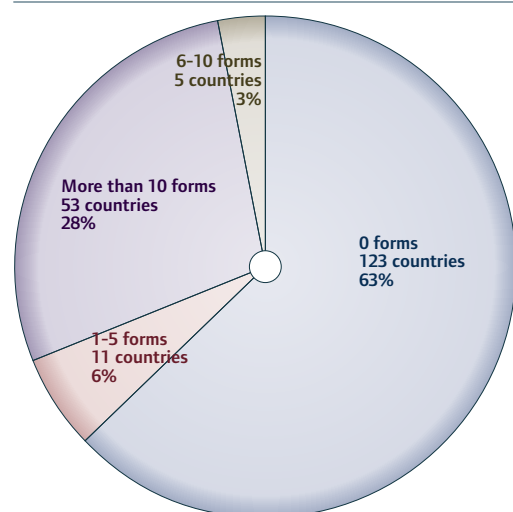
Even static forms are not widely available on national portals. Figure 4.9 indicates that 63

#### Box 4.17 Leaders in transactional and connected e-government

Who are the world leaders in transactional and connected e-government? The following countries are in the third or fourth stage of online services development: Australia, Austria, Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Japan, Malaysia, Netherlands, New Zealand, Norway, Republic of Korea, Singapore, Spain, Sweden, United Kingdom and United States.

These countries have been integrating back-office operations and providing e-services to citizens in a seamless manner. Information is efficiently transferred between agencies and departments. In addition, these countries have a proven track-record of using Web 2.0 tools to communicate with citizens and regularly receive inputs from them. These inputs are used to shape public policy and law. The level of public trust in government is higher among advanced e-government countries than in many other places.

percent of countries have not provided citizens with the capability of downloading static forms, let alone forms that can be filled-out and submitted online. In many least developed countries citizens can download forms, complete them by hand and manually submit them to the relevant ministry or department.

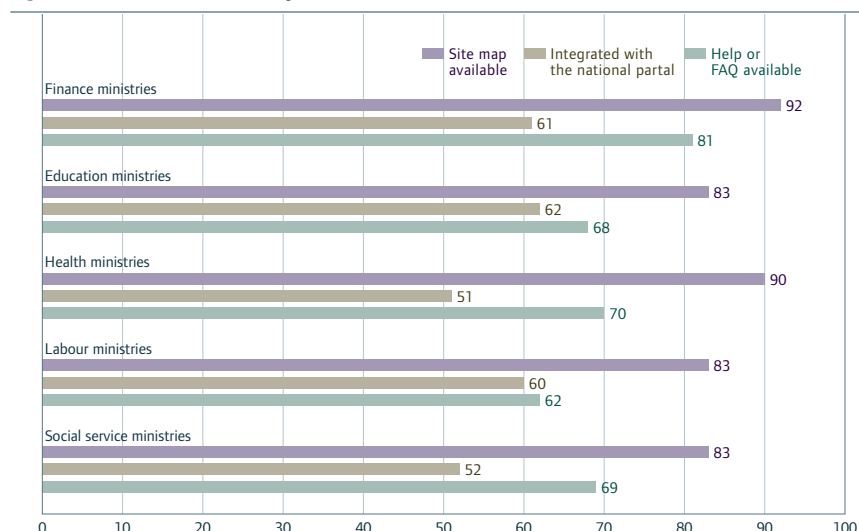
Figure 4.9 **Availability of static online forms**

Some 49 percent of national portals or websites are in more than one language. Where a site has more than one language, English is usually the second language, demonstrating the continued importance of that language on the Internet. In a few cases, ministry websites are in English only, while English is not the first language of that country.

Table 4.31 **Website design features: RSS, audio, video, language**

Feature	Number of countries	Percent
Site meets provides at least minimal level of web content accessibility	24	13
Site support audio and/or video content	95	49
Site provides real simple syndication (RSS)	68	35
Site offers content in more than one language	95	49

The use of real simple syndication (RSS) feeds jumped from 10 percent of national portals in the 2008 Survey to 35 percent in the 2010 Survey. This means that more national portals are automatically releasing information and content to individual subscribers. Citizens are informed whenever any updates are made.

Figure 4.8 **Features of ministry websites**

Multimedia is gaining importance in the configuration of most national and ministry websites, with 49 percent of national portals supporting audio and/or video content, up from only 38 percent in 2008.

Table 4.32 **Support of mobile access**

Feature	Number of countries	Percent
Site supports WAP/GPRS access	24	13
Site offers service to send alert messages to mobile phones	25	13
User can apply for registration or application by mobile phone	14	7
Users can pay registration fees, fines, etc. by mobile phone	17	4

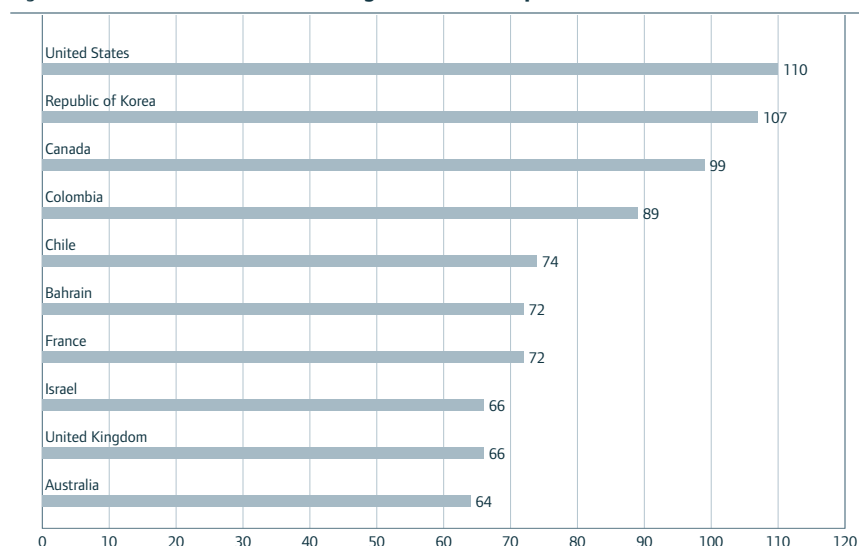
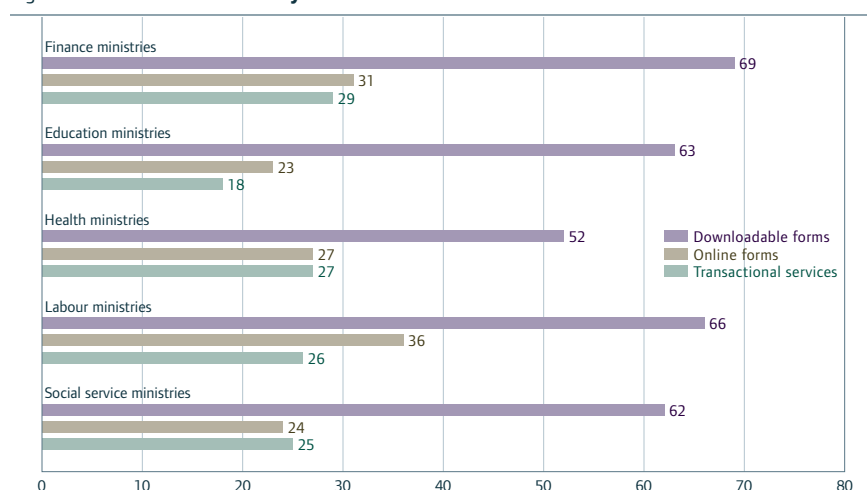
Figure 4.10 **Selected countries with high transactional presence scores**

Figure 4.11 Number of ministry websites with online forms and transactional services



Wireless devices such as mobile phones are being used by some governments to provide services in the form of alert messages, applications or fee payment. Table 4.33 indicates a slight increase in the number of national portals using wireless application protocol (WAP) for wireless communication. In 2008, 19 national portals had WAP implemented.

Wireless devices such as mobile phones are almost equally popular in developing countries as they are in developed countries. In 2008, 14 national sites offered mobile alerts, while in 2010, that number increased to 25. Such an increase is minor compared to the major opportunity that wireless devices offer to governments interested in providing electronic content and services to their citizens. Meanwhile, only in seven countries can users pay registration fees, fines, etc. via mobile access provided through their national portals. These countries are Bahrain, Croatia, Estonia, Israel, Mongolia, New Zealand and Sudan.

Table 4.33 Online payment

Payment type	Number of countries	Percent
Taxes	34	18
Registrations	36	19
Permits, certificates, identification cards	33	17
Fines	22	11
Utilities	18	9

Compared to mobile payment options, more are offered through online portals. How many countries allow online payment of taxes, fines, registrations, utilities, and certificates from their

national portals? The majority of countries in table 4.33 were middle income countries. Since 2008, there has been a slight increase of governmental online payment facilities.

### Transactional services

Only a few countries are able to offer many transactional services online at this time. However, countries with the highest scores in figure 4.10 offer a wide range of integrated transactional e-services that cater to many segments of society. They have comprehensive back office integration systems and secure networks on which these e-services operate, giving citizens security and confidence. The United States, the Republic of Korea and Canada are the top three countries in terms of transactional opportunities. The developing countries are well-represented in the top 10 with four countries: Bahrain, Chile, Colombia and Israel.

Table 4.34 Online submissions

Feature	Number of countries	Percent
Online forms	53	28
Online transactions	60	32
Application for government benefits	32	17
Acknowledgement of receipt	19	10

Table 4.35 Connected presence

Feature	Number of countries	Percent
Single sign-on	31	16
Electronic identity management and authentication	33	17
One-stop shop	130	68
Information in machine readable format	74	39
Interaction with Head of State	61	32

Table 4.36 Connecting to citizens

Feature	Number of countries	Percent
Citizens can request personal information about themselves	21	11
Users can tag, assess and rank content	7	4
Users can initiate proposals	16	8
Users can personalize the website	12	6
Government has committed to incorporating e-participation outcome in decision making	22	11

Fewer than one-third of governments provide citizens with the possibility of online transactions and the online submission of e-forms, as shown in table 4.34 on online submissions. In addition, less

than 20 percent of governments allow citizens to apply for government benefits online. The main reason for this low number is the complex integration that is required among different systems to ensure compatibility and a seamless interaction. All administrative or financial transactions need to be performed over a secure network. The threat of identify theft or financial fraud is too great on an unsecured network.

The websites of ministries of finance have the most downloadable forms and online transaction services available for citizens, while the ministries of labour have the most e-forms, as seen in figure 4.11.

Governments are having some success in creating a 'connected presence' with their national portals. Table 4.37 shows that they are creating websites that support citizens by making it easier for them to find information, by integrating sites into a one-stop shop, and by creating single-sign-on for access to all government services. The level of sophistication of the single-sign-on varies greatly among countries. Very few single-sign-on systems have reached the level of Singapore's Sing-pass.

Governments are inviting citizens to become more actively involved in determining the design and content of portals and websites. Table 4.36 lists a variety of ways this is being done. Some countries allow users to personalize their own 'Mysite' from the information found on government portals. Six countries allow citizens to tag and rank content, which allows them to have more control of the information provided in the portals.

#### 4.4.3 The data behind the rankings

What kind of data goes into measuring a country's performance in online services? Table 4.37 shows categories on online service data including emerging information services, enhanced information services, transactional services and connected services. The scores include the total scores for the national portal and five ministries. The maximum points that a country could attain is 403.

Table 4.38 shows online service data for selected developing countries. Most developing countries are still limited in the transactional aspect of e-government. None of the countries listed were able to obtain over 50 percent of the points available in the transaction stage.

Table 4.37 Breakdown of online service scores for top ranked countries

Rank	Country	Emerging information services (stage 1)		Enhanced information services (stage 2)		Transactional services (stage 3)		Connected services (stage 4)		Total	
		Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)
1	Republic of Korea	66	97	106	91	112	66	31	62	315	78
2	United States	62	91	97	84	115	68	21	42	295	73
3	Canada	59	87	83	72	104	62	32	64	278	69
4	United Kingdom	61	90	87	75	71	42	25	50	244	61
5	Australia	58	85	76	66	69	41	38	76	241	60
5	Spain	60	88	88	76	68	40	25	50	241	60
7	Norway	61	90	85	73	69	41	17	34	232	58
8	Bahrain	63	93	72	62	72	43	23	46	230	57
9	Colombia	57	84	51	44	89	53	27	54	224	56
10	Singapore	54	79	82	71	64	38	16	32	216	54
11	France	54	79	71	61	77	46	13	26	215	53
12	Netherlands	60	88	80	69	55	33	19	38	214	53
13	Denmark	54	79	88	76	52	31	18	36	212	53
13	Japan	59	87	78	67	56	33	19	38	212	53
15	New Zealand	59	87	76	66	46	27	20	40	201	50
16	Malaysia	51	75	73	63	55	33	20	40	199	49
17	Belgium	57	84	66	57	54	32	20	40	197	49
18	Chile	57	84	44	38	74	44	17	34	192	48
19	Israel	49	72	45	39	66	39	24	48	184	46
20	Mongolia	47	69	49	42	54	32	25	50	175	43
21	Germany	54	79	76	66	23	14	20	40	173	43
22	Jordan	50	74	44	38	57	34	17	34	168	42
23	Egypt	55	81	51	44	49	29	12	24	167	41
24	Kazakhstan	66	97	53	46	24	14	23	46	166	41
24	Sweden	54	79	67	58	26	15	19	38	166	41

Table 4.38 Online service levels in selected developing countries

Rank	Country	Emerging information services (stage 1)		Enhanced information services (stage 2)		Transactional services (stage 3)		Connected services (stage 4)		Total	
		Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)
30	Tunisia	52	76	40	34	50	30	10	20	152	38
32	Uruguay	51	75	43	37	36	21	21	42	151	37
36	Kuwait	41	60	39	34	58	34	7	14	145	36
39	Mexico	45	66	52	45	26	15	16	32	139	34
40	El Salvador	48	71	30	26	46	27	10	20	134	33
44	Argentina	53	78	42	36	22	13	13	26	130	32
45	Peru	53	78	37	32	26	15	13	26	129	32
49	Philippines	48	71	25	22	35	21	16	32	124	31
53	Uzbekistan	52	76	39	34	18	11	10	20	119	30
54	Cyprus	44	65	39	34	19	11	15	30	117	29
55	Brazil	53	78	34	29	10	6	19	38	116	29
55	China	54	79	40	34	4	2	18	36	116	29
55	India	45	66	41	35	22	13	8	16	116	29
55	Oman	47	69	33	28	26	15	10	20	116	29
59	Dominican Republic	46	68	30	26	24	14	15	30	115	29
62	Turkey	57	84	29	25	9	5	14	28	109	27
62	Ukraine	55	81	31	27	7	4	16	32	109	27
65	Trinidad and Tobago	50	74	39	34	12	7	6	12	107	27
67	Thailand	50	74	31	27	15	9	9	18	105	26
68	Russian Federation	49	72	28	24	15	9	12	24	104	26



Table 4.39 **Online service levels in least developed countries<sup>1</sup>**

Rank	Country	Emerging information services (stage 1)		Enhanced information services (stage 2)		Transactional services (stage 3)		Connected services (stage 4)		Total	
		Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)	Points	Score (%)
60	Bangladesh	48	71	44	38	5	3	15	30	112	28
65	Angola	52	76	38	33	9	5	8	16	107	27
95	Lesotho	52	76	29	25	1	1	1	2	85	21
106	Afghanistan	41	60	25	22	5	3	2	4	83	21
111	Ethiopia	32	47	23	20	3	2	5	10	73	18
114	Bhutan	30	44	21	18	6	4	2	4	63	16
116	Mali	29	43	12	10	9	5	8	16	59	15
120	Senegal	32	47	14	12	3	2	7	14	58	14
121	Rwanda	34	50	14	12	2	1	5	10	56	14
121	United Republic of Tanzania	34	50	21	18	...	...	...	...	55	14
124	Mozambique	32	47	13	11	3	2	6	12	55	14
125	Nepal	30	44	22	19	...	...	1	2	54	13
126	Madagascar	28	41	13	11	4	2	7	14	53	13
127	Maldives	27	40	24	21	...	...	...	...	52	13
129	Burkina Faso	26	38	13	11	...	...	10	20	51	13
129	Sudan	23	34	16	14	2	1	8	16	49	12
134	Samoa	24	35	21	18	...	...	...	...	49	12
135	Cambodia	25	37	13	11	2	1	3	6	45	11
138	Timor-Leste	23	34	16	14	...	...	3	6	43	11
143	Benin	20	29	10	9	4	2	3	6	42	10
145	Zambia	21	31	8	7	...	...	4	8	37	
146	Uganda	18	26	11	9	...	...	3	6	33	
150	Democratic Republic of the Congo	17	25	7	6	...	...	4	8	32	
150	Mauritania	11	16	13	11	1	1	3	6	28	
150	São Tomé and Príncipe	21	31	7	6	...	...	...	...	28	
154	Gambia	16	24	9	8	...	...	1	2	28	
154	Myanmar	19	28	7	6	...	...	...	...	26	
156	Lao People's Democratic Republic	12	18	9	8	2	1	2	4	26	
160	Togo	6	9	8	7	3	2	5	10	25	
163	Liberia	11	16	7	6	...	...	2	4	22	
167	Djibouti	9	13	3	3	...	...	3	6	20	
167	Yemen	9	13	4	3	...	...	2	4	15	
169	Solomon Islands	7	10	6	5	...	...	1	2	15	
170	Burundi	8	12	2	2	...	...	3	6	14	
172	Niger	4	6	2	2	3	2	3	6	13	
173	Guinea	5	7	2	2	3	2	1	2	12	
174	Equatorial Guinea	2	3	5	4	...	...	3	6	11	
175	Comoros	5	7	3	3	...	...	1	2	10	
175	Kiribati	4	6	5	4	...	...	...	...	9	
179	Eritrea	3	4	4	3	...	...	...	...	9	
181	Chad	3	4	2	2	1	1	...	...	7	
181	Haiti	3	4	2	2	...	...	1	2	6	
184	Guinea-Bissau	...	...	3	3	1	1	1	2	6	
184	Malawi	3	4	2	2	...	...	...	...	5	
186	Tuvalu	1	1	3	3	...	...	...	...	5	
186	Vanuatu	1	1	2	2	...	...	1	2	4	
189	Sierra Leone	...	...	...	...	...	...	1	2	4	
...	Central African Republic	...	...	...	...	...	...	...	...	1	
...	Somalia	...	...	...	...	...	...	...	...	...	

Least developed countries have no real e-services, nor are they providing citizens with transactional opportunities, as presented in table 4.39. The vast majority of the sites surveyed primarily contain e-information and the beginning stages of citizen engagement with polls and feedback forms. The top two positions among least developed countries in the online service assessment went to Bangladesh and Angola. ■