United Nations
Economic Commission for Latin America and the Caribbean

Grenada's Information Society

Country Profile

Subregional Headquarters for the Caribbean

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1. Summary Profile

Three islands, Grenada, Carriacou and Petit Martinique, comprise the independent State of Grenada, member of the Organisation of Eastern Caribbean States (OECS).

Known as the spice island for its centuries-old spice plantations and the abundance of nutmeg trees, the country's economy was completely devastated by Hurricane Ivan in 2004, causing damages estimated at US$815 million, more than 200% of the nation's GDP.

Grenada's priority since has been to rebuild its production capacity and infrastructure through a Public Sector Investment Programme.

Access and Infrastructure

The telecommunications market is fully liberalized as part of the Eastern Caribbean liberalization process.
However, there is limited competition in the delivery of both telephony and Internet services. In response to its low penetration of computers and Internet access, limited and isolated community access center initiatives by UNESCO, UNDP and OECS have been put in place.

Policy Instruments

Although Grenada has a solid offshore banking and international business legal framework, it has not enacted yet any ICT specific legislation.
The Central Information Management Agency (CIMA), under the Prime Minister's Office, oversees the implementation of the 2006-2010 ICT Strategy (which updates de 2001-2005 action plan).

Capacities and Knowledge

While the country faces limited availability of ICT-skilled labor, it has been able to support the establishment of offshore call centers initiatives. Network infrastructure in the public school system was destroyed by Hurricane Ivan but is expected to be redeployed.

Content and Public Services

There is little availability or generation of local on-line content. Existing content is mostly tourist and travel information and there is no local e-commerce activity or on-line transactions by local institutions. Public websites are mostly informational.

Table 1. Selected Data and Indicators[1]

Territorial Extension	131.27 sq miles
Population	105,747 41% Urban 4,300 in largest city (St. George)
GNI	USD 396,546,080 USD 3,750 per capita
Cost of Internet Access	USD 23 Dial Up (20 hours) USD 56 Broadband (256/128k)

ICT Penetration	Total	per 100 pop.
Fixed Line Subscribers	33,575	31.75
Mobile Subscribers	44,467	42.05
No. of Computers	16,423	15.53
Internet Users	17,871	16.9
Broadband Users	1,216	1.15

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[1] *Sources: Fixed Line and Mobile Subscribers (ITU, 2005); Internet Users, No. of Computers (ITU, 2004).*

2. Access and Infrastructure

Although the market is fully liberalized, competition in the delivery of telephony and Internet services is limited. Access to both computers and to the Internet is low and community access centers (from UNDP, UNESCO and OECS) are few and not coordinated among themselves.

2.1. Telecommunications Sector

Telecommunications Regulation

Grenada's Telecommunications are regulated through a National Telecommunications Regulatory Commission part of the Eastern Caribbean Telecommunications Authority (ECTEL).
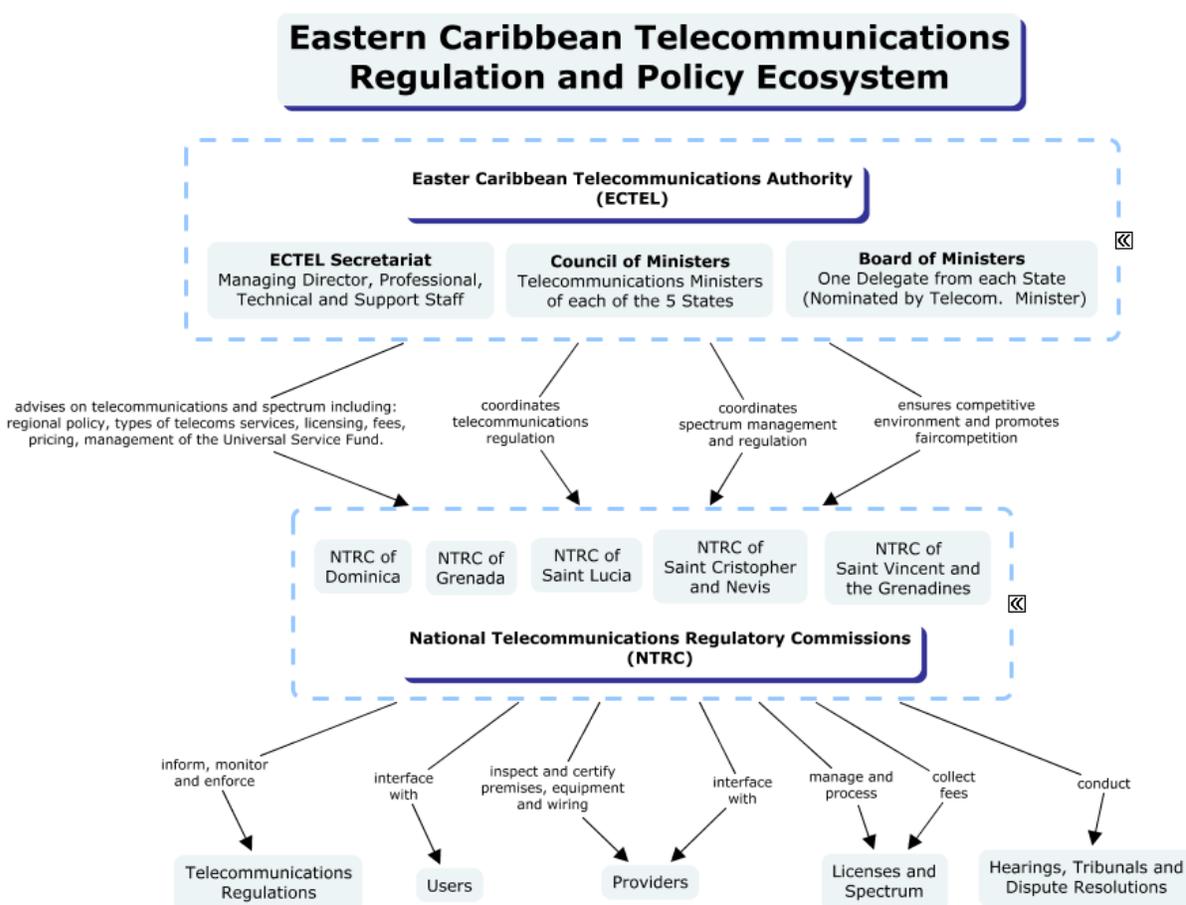

Figure 2. Eastern Caribbean Telecommunications Regulation and Policy Framework

Market Liberalization

As part of ECTEL's liberalization process, all segments of Grenada's telecommunications market are formally liberalized and open to competition. However, former monopoly Cable

& Wireless[2] remains the major, and in many cases the only, provider for telecommunications services other than mobile.

On 2003, Digicel[3] brought competition to the local mobile market and cell phone usage increased significantly through aggressive promotion and lower rates.

A new marine cable is planned to be laid and become operational, increasing bandwidth and quality of service in the Eastern Caribbean, before the end of 2007 according to ECTEL.

Internet Access

Cable and Wireless offers dial-up and broadband DSL Internet access, as well as prepaid Internet access cards and Voice over IP services. Digicel provides wireless Internet access via its GPRS networks with selected mobile phones.[4]

Box 1. Cable and Wireless Computer-less solutions

To address limited penetration of computers, Cable and Wireless offers "Max",[5] a complete basic computing - broadband solution that comes with a keyboard, mouse, monitor and high speed Internet modem, running a customized version of Microsoft Windows with pre-installed applications.

It also offers Netspeak, a Voice over IP package that allows broadband Internet subscribers make seamless long distance phone calls at significantly reduced price using a digital phone (no computer required) to which a telephone number accessible by conventional phones is assigned.

Table 2. Internet Access Prices in Grenada[6]

Access	US$	EC$
Cybercafe (per hour)	1.88-3.77	5-10
Dial-Up (per month)		
- 10 hours	13	35
- 20 hours	23	60
- 30 hours	30	80
- Unlimited	49	129
Broadband (per month)		
- 256k / 128k	56	149
- 512k / 128k	75	199
- 768k / 256k	143	379
- 1544k / 512k	264	699

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2 *http://www.candw.gd*

3 *http://www.digicelgrenada.com*

4 *http://www.digicelgrenada.com/add_ons/add_ons.php?addon_display=mobile_web*

5 *http://www.cwxnet.com/gnd/packages/max.php*

6 *Dial-up and broadband prices are residential rates from Cable and Wireless.*

2.2. Community Access

Grencoda Community Multimedia Centre

Grenada Community Development Agency (GRENCODA) defines itself as an "indigenous not for profit, non-partisan, non-governmental development Agency committed to development of Grenada's rural communities" working in rural Grenada since 1985.

It received US$20,000 from UNESCO's International Programme for the Development of Communication (IPDC)[7] to support the operation of a community multi-media centre on the west coast of Grenada and provide communication services and training to rural women, youth and local producers.

Training includes basic ICT and Internet skills, website development, audio and video recording and editing, as well as traditional skills. By building multimedia capacity, it is expected that local community member can improve the quality of existing conventional training, document experiences and provide desktop publishing and other services to the local producers. The program also aims at improving community members participation in national dialogue and strategic planning and policy decision processes.

UNDP Community Resource and Internet Centres (CoRICs)[8]

This United Nations Development Programme (UNDP) initiative provides Internet access, computer facilities and training mostly to young adults and single mothers in underserved areas. It focuses on empowering the community it serves and having it actively engaged in the centre's maintenance and operation. UNDP has announced its intention to expand the initiative and open more CoRICs to benefit more of Grenada's underserved communities.

OECS Cultural Internet Cafés[9]

The Organisation of Eastern Caribbean States (OECS) has deployed more than 30 Internet access centers in coordination with local cultural centers in Antigua & Barbuda, Dominica, Grenada, Saint Lucia, Saint Kitts & Nevis, Saint Vincent & the Grenadines.

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[7] http://portal.unesco.org/ci/en/ev.php-URL_ID=13270&URL_DO=DO_TOPIC&URL_SECTION=201.html

[8] http://www.unites.org/html/projects/ongoing.htm

[9] http://www.oecsculture.com/member_pages/ext_icafe_info_temp.php?id=1&pg=icafe_home

3. Capacity and Knowledge

There is limited availability of ICT skilled labour and network and Internet connectivity infrastructure in the public education system was destroyed by Hurricane Ivan. Nonetheless, Grenada had succeeded in providing local personnel for several offshore call center initiatives and runs a successful medical school that attracts international students.

3.1. Public Education System

Recently, the Ministry of Education and Labour has launched a Virtual Classroom a satellite based education system for the untouched and deprived areas and also to give better education to the students.

Also the Ministry of Carriacou and Petite Martinique, the smaller sister islands of Grenada, has inaugurated a Resource Center with library and state of the art computer facility with broadband internet connectivity. The facility also has subscription for online library as to provide the resources to the research aspirant and student to enhance the knowledge.

Prior to Hurricane Ivan, the Ministry of Education and Labour had connected 22 schools to the Ministry's network, providing computers for the Principal and the secretary and setting up computer laboratories with 27 computers in each one of them. Ten week courses on Basic ICT Skills were provided for adults in the schools laboratories during the summer.

> **Box 2. Cable & Wireless Scholarships**
>
> In coordination with the Ministry of Education, former telecommunications monopoly Cable & Wireless grants five (5) year scholarships to twelve (12) new students every year, plus an additional one (1) year scholarships to three (3) students.

3.2. Higher Education

Saint George's University, which runs a successful medical schools that attracts a significant number of international students, provides "computer, network, telephone and Internet services to the entire University community".[10] Students have access to some 100 computers with Internet access and those with their own computers also benefit from free wireless access to the Internet.

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[10] http://www.sgu.edu

4. Business and Commerce

There is limited e-commerce activity in the island and no local e-commerce providers or initiatives were identified. While the offshore industry plays a significant role in the national economy, its impact in ICT development, local capacity and services is reduced.

4.1. Consumer Services

Both Cable and Wireless[11] and Digicel[12] allow on-line consultation and review of phone bills and detailed charges, but neither offers the option of on-line payment.

On January 2005, First Caribbean International Bank introduced Internet banking services in all fifteen (15) countries it operates in the Caribbean region, including Grenada. Both, the National Commerce Bank of Grenada (NCB)[13] and the Royal Bank of Trinidad and Tobago (RBTT)[14] allow on-line preliminary application for services and limited on-line transactions to registered customers.

GrenadaMarket.com, an on-line store of Grenadian products, operates outside Grenada and targets Grenadian diaspora mostly. It offers a limited selection of music, books, DVD's and mostly spices and condiments.

4.2. Tourism Industry

Several hotels and tourism related services allow on-line reservations via web forms or e-mail, but none offers automated reservations or on-line payment options.

All available automated booking and on-line payment options for the tourism sector are provided by foreign companies operating outside Grenada, reducing the benefits for the country of the increased exposure and additional sales channel the Internet represents.

4.3. Call Centers

The most significant local Information Society business initiatives in the current decade have been offshore call centers, including Ocean Call, Caribbean Information Technologies, Go4Customer[15] and Call Centres of Grenada. Worth noting are:

- Ocean Call, a UK company, operates an offshore call center in Grenada with a staff of over 300 people.
- Caribbean Information Technologies, a Grenada based company, opened call centers in Grenada, Antigua, Saint Kitts and Nevis and Saint Vincent and the Grenadines, in cooperation with their respective governments during the first half of the 2000 decade.

Unfortunately allegations of corruption and nepotism and a millionaire national debt with Cable and Wireless from the Government's investment in call centers cast a shadow on the potential and the benefits attained in this area.

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[11]   http://www.candw.gd/eaccount
[12]   http://www.digicelgrenada.com/my_digicel/customer_bill_query.php
[13]   http://www.ncbgrenada.com
[14]   http://www.rbtt.com/applicationloader.asp?app=articles&id=522
[15]   http://www.go4callcenter.com/telemarketing-call-center/index.htm

5. Content and Culture

There is limited local content available on-line or generated by Grenadians and most web sites are tourism and travel related, often maintained by foreigners operating outside Grenada. The island lacks popularly known local web portals frequented by nationals or with current local information.

> **Box 3. OECS Cultural Network**
>
> This regional web portal covering cultural activities and heritage of the OECS countries includes updated information on Grenadas's main cultural events and institutions at www.oecsculture.net.

5.1. Mainstream Media

National newspaper Grenada Today weekly on-line version is merged with a local information portal and delivers limited coverage of local news on-line. Continuous news coverage is mostly done by regional portals and news services. Grenada Broadcasting Network (GBN) offers updated but limited news clips through their website.[16] The website offers a link to listen to Grenada Klassic live on-line. At least, another radio station, CitySound 97.5FM, is available on-line as a live stream.[17]

5.2. Top Level Domain Governance and Commercialization

Grenada's country code top level domain (ccTLD) is ".gd" and is administered by the the University of Puerto Rico,[18] except for .gov.gd and .edu.gd. Administrative and sponsoring control of the TLD is handled at a local level by Ta Maurryshow Community College, but Technical control and DNS handling is managed abroad at the University of Puerto Rico.

Table 3. Grenada's Country Code Top Level Domain (ccTLD) Governance

tld	Sponsoring Org.		Admin. Contact		Technical Contact		DNS Servers	
	Location	Nature	Location	Nature	Location	Nature	Location	Nature
.gd	Local	Educ.	Local	Educ.	Foreign	Educ.	Foreign	Educ.

Domains under the .gd TLD can be registered by both national and foreign individuals and organizations by sending a check or money order to the University of Puerto Rico. There is no on-line availability check, order or payment facility available for registering a .gd domain name.

Table 4. Commercialization of Grenada's Domain Names

tld	Price	On-line Commercialization			
		Info Request	Availability Check	Order	Payment
.gd	US$100 register US$50/yr renew	O	O	O	O

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[16] http://www.klassicgrenada.com
[17] http://www.citysoundfm.com
[18] http://www.nic.pr/other_domains.asp

6. Policy Instruments

The Central Information Management Agency (CIMA), a dependency of the Prime Minister's Office is responsible for coordinating the implementation of the 2006-2010 National ICT Strategy and Action Plan. Although Grenada has a solid legal framework for international business and offshore banking, it has no ICT specific legislation.

6.1. Public ICT Policy History

The ICT policy started with an initiative to liberalize the Telecommunication sector and with the merger of ICT the policy was included into the other areas. Although a great deal of work is still pending to formulate a comprehensive ICT Policy.

ICT has now grown both in Public and Private sectors but a lot of work is still to be done in this area as well. The financial application is automated and well working in the department and e-Governance is catching up with differed G2G and G2C application in the pipe line for implementation.

On December 2005, the World Bank allocated US$3.5 million for a Public Sector Modernisation Program focused on "improving the efficiency of service delivery and public management, enhancing the collaboration between the public and private sectors in support of strengthening small businesses, and promoting increased collaboration between OECS (Organization of Eastern Caribbean States) members".

6.2. Coordinator and Main Actors

The Prime Minister is responsible for the Portfolio of ICT for Grenada. The Central information Management Agency (CIMA) under the Prime Minister's Ministry is responsible for the implementation of ICT initiatives in the Country *(see info box for details)*.
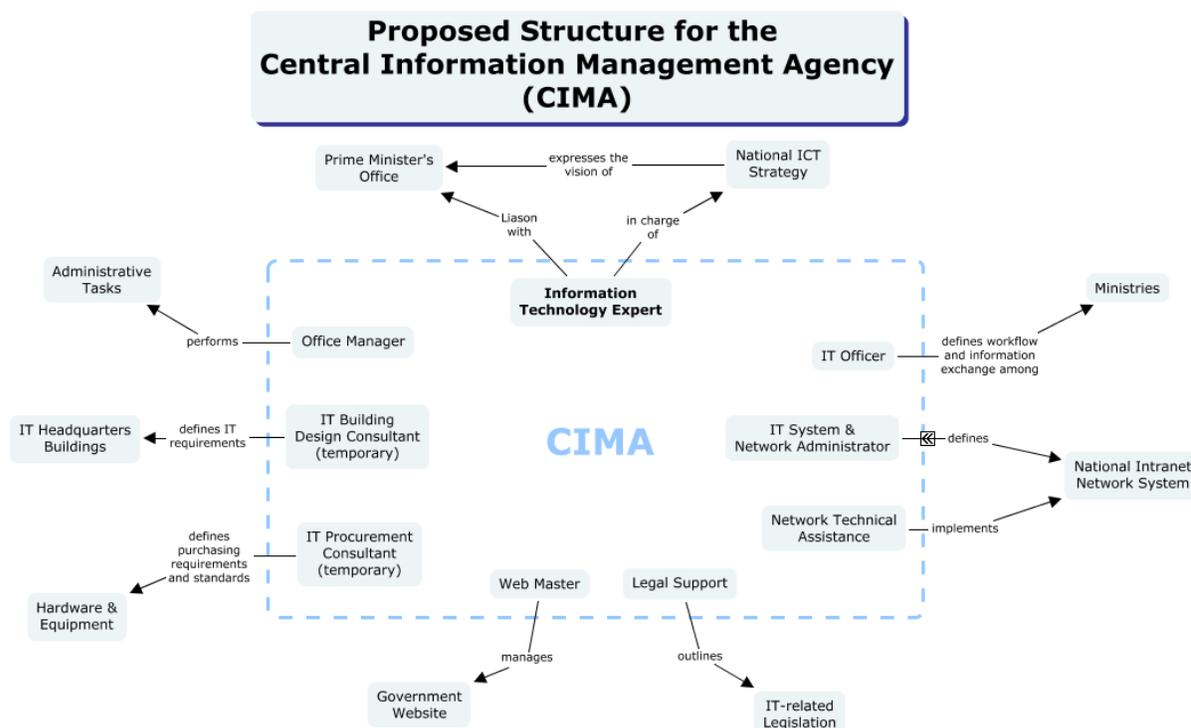

Figure 3. Proposed Structure for Grenada's Central Information Management Agency

> **Box 4. Functional Objectives of Grenada's**
> **Central Information Management Agency (CIMA)**
>
> ❍ Complete/update final version of strategy and action plan document
> ❍ Disseminate information, and market all elements of the plan to public sector and Nation.
> ❍ Establish tasks and projects, and prioritize to meet short term and long term goals.
> ❍ Develop proposals with respect to implementation criteria and present to cabinet.
> ❍ Define roles and responsibilities for the managing of specific areas of ICT implementation.
> ❍ Facilitate and liaise with Ministries responsible for areas of ICT deployment to ensure focus and continuity with the plan.
> ❍ Develop and manage budgets related to the implementation of the plan.
> ❍ Facilitate in coordination exercises relative to implementation of existing ICT projects such as Ministerial e-mailing capabilities, LAN standardization techniques, and other national ICT deployment endeavors.
> ❍ Expedite and make available the legal media through which ICT tasks become manifest.
> ❍ Assume accountability for any ICT government site acquisition activity.
> ❍ Enforce standardization disciplines within National Network Development.
> ❍ The sourcing of critical resources necessary for the completion of tasks leading towards plan objectives.
> ❍ Assist in the development of other agencies or councils responsible for bridging the digital divide in the public and private sector.
> ❍ Ensure appropriate training strategies are in place to meet national IT training qualification criteria.
> ❍ Ensure the inclusion of measurement systems within the ICT framework to monitor for continuous improvement possibilities.

6.3. National ICT Strategy or Agenda

The first formal ICT Strategy was prepared by the Prime Minister's Office, under the direction of its Director of Information Technology, under the name of "Information and Communication Technology – A Strategy and Action Plan for Grenada 2001-2005".[19] In 2006, it was renewed for the next 5 years, 2006-2010.

A new Central Information Management Agency (CIMA) was created under the Prime Minister's Office to overview and implement the Strategy. The strategy outlines a plan to create internal Information Management Units within each government agency to implement ICT projects and facilitate coordination with CIMA.

There are no permanent federal or national coordination mechanisms for implementation e-Government. Monitoring of e-government project is done by each Ministry for projects undertaken under its own realm.

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[19] *Available on-line at http://www.unpan.org/tasf/ICTStrategy-Grenada.PDF*

6.4. Public Sector Modernisation Program

On December 2005, the World Bank approved a US$3.5 million loan to support Grenada's Public Sector Modernisation Program 2006-2010.[20] These funds should jumpstart the modernization process to transform the public sector into an efficient provider of services, with an increased management capacity and open to collaboration and actively engaged with the private sector for public sector. Improved support for small businesses and enhanced collaboration with other OECS (Organization of Eastern Caribbean States) members is also an expected outcome.[21]

6.5. Legislation

While Grenada has no legislation specific to ICT, e-Government or the Information Society, it does have a solid legislation framework for offshore banking and international business including:

- International Companies Act (amended on 2002)
- International Insurance Act 1996 (amended on 2002)
- International Trusts Act (1996)
- Offshore Banking Act (2003)
- International Financial Services Act (2002)
- International Betting Act (1998)

In addition, there is a Consumers Protection Act and current work on a Freedom of Information Act. The competitive advantage of this attractive framework, however, is limited by the lack of legislation specific to electronic commerce and digital transactions, already in place in other Caribbean islands competing for the same market.

6.6. e-Government Initiatives

Although Grenada has had to focus in rebuilding its national infrastructure after the heavy impact of Hurricane Ivan in 2004, it is also advancing in setting up an ICT infrastructure to support the Public Sector Reform Program and improve the government agencies efficiency and coordination. These advances include:

- Establishment of the Central Information Management Agency (CIMA), to oversee and implement the National ICT Strategy in alignment with the Prime Minister's Office. The Government of India has assigned an IT Expert from its Ministry of Communications & Information to coordinate CIMA's activities and push IT deployment in the government.
- Automation of processes within the Ministry of Finance.
- Initial Deployment of a Governmental Intranet Network.
- Acquisition and deployment of hardware for access and capacity building.
- Limited training.
- Negotiations are underway with the Government of Jamaica for the adaptation and implementation of Jamaica's successful Customs Information System.

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[20] http://www.gov.gd/doc/DRAFT%20POLICY%20PAPER%20-%20GDA%20PSM.pdf
[21] http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P082392

Box 5. Limited Impact of on-line Resources

The Inland Revenue Division placed on its website downloadable versions (PDF) of both Individual and Corporation annual tax returns on March 27, 2006.[22] Six months later, the Individual Annual Income Tax Return had been downloaded a mere 57 times and the Corporation Annual Tax Return only 47 times.

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[22] *http://www.irdgrenada.com/component/option,com_docman/Itemid,46/task,cat_view/gid,22*

Table 5. Grenada's Public ICT at a Glance

Internet Penetration		ICT Legislation	
Population with Internet Access	16.9%	Electronic Transactions	O
National ICT Strategy		IT Misuse and Cybercrime	O
Strategy formulated and published	●	Data Protection	O
Coordinating Agency appointed	●	Consumer Protection	●
Backed by Strategy Specific ICT Budget	O	Freedom of Information	◖[1]
Being Implemented	O	**e-Government Services**	
Public Expenditure on ICT		Access to Information	●
Central ICT Budget	O	On-line Transactions	O
Specialized Budget:		On-line Payment of Services	O
○ National ICT Strategy & Coordination	O	Interconnection of Agencies	◖
○ E-Government Projects	◖[2]	To Support Business Sector	O
○ To Promote Universal Access	O	**Top Level Domain Governance**	
○ To Promote IT Industry Development	O	Country Code	.gd
Universal Access Fund Mechanism	O	Price	US$100 register US$50/yr renew
Info on Total Govt. ICT Expenditure	O	On-line Commercialization:	
Coordination of Public ICT Initiatives		○ Info request	O
National Coordination Mechanism	O	○ Availability check	O
Coordination among ICT Strategy and public institutions?	O	○ Order placement	O
Coordination influences budgets	O	○ Payment	O
Periodic evaluation of ICT projects	O	Sponsoring Organization	Local
Public Sector Reform Program	●	Administrative Contact	Local
Coordination among ICT and Public Sector Reform Projects	O	Technical Contact	Foreign
		DNS Servers	Foreign

1. Under development, in Bill form.

2. Internal funds allocation within government agencies as opposed to formal allocation in public budget.