

Access to Public Domain on Israeli Government Websites

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Background: a five Tiered Model

The computer unit at the Accountant-General's office has been promoting the e-Government project for the past 10 years. Actual activity in this area began in the early months of 1997, with the nomination of the government Internet committee and the initiation of Project "Tehilla". Many projects and initiatives were added along the way. The master plan was created during 2002 and a government decision was passed, significantly promoting and increasing the resources available for e-Government services.

The master plan is based on an advanced e-Government model, developed at the Accountant-General's computer unit. All initiatives promoting e-Government in Israel are based on this five-tiered model, which relates to all the layers that need to be addressed in order to realize a full e-Government model. This model divides the e-Government layout technologically, and describes the all systems required for the realization of a full e-Government vision.

The tiers are laid horizontally. Each tier deals with a certain depth level along the line of communication between the citizen and the government.

The citizen is at the head of the pyramid, and lower levels contain more infrastructure technologies. In spite their relative distance from the end-user, they are the ones allowing the required functionality.

Naturally there is no need for the full layout in order to provide the basic levels of e-Government, such as general information websites. However, a seamless government bureaucracy, a fundamental organizational restructuring and a full and convenient service to the citizen, require parallel handling of all five tiers, which are:

- **Tier 1 – an intra-governmental communication infrastructure:** The basis of the government's ability to provide service for citizens is the existence of an intra-governmental communication infrastructure allowing for an information flow within the government affording the ability to provide different service on the same platform.
- **Tier 2 – intra-governmental applications:** An intra-governmental layer of applications and databases. This is the governmental ERP, covering a variety of subjects, which are in the heart of any organization: budget, logistics, manpower, etc.

- **Tier 3 – application secured infrastructure:** This layer includes communication-infrastructure as well as technologies that allow for certain governmental systems transparency, while maintaining information security, in order to communicate with the citizen. The existence of tiers 1 and 2 enables the use of unified governmental infrastructure for communication with citizens.
- **Tier 4 – services infrastructure:** This layer includes the layout of e-Government applications, through which citizens can conduct official business and obtain information. These applications are built especially to serve the public and are thus adjusted to its needs.
- **Tier 5 – support and assimilation:** This layer encompasses all physical technologies and resources required for education and assimilation of the technology in challenged populations. This Layer is responsible for closing the digital gap and promoting the actual use of the systems by the entire public.

Current government services and applications operating under this model, and those under development in accordance with the model, include:

Digital ID: distribution of a secured, digital identification method of conducting official and other business among all Israeli nationals and residents.

Public Key: allowing citizens and government officials to conduct official business in a secure, efficient, sophisticated, and convenient way. The project includes smart card-based certificates for commercial use.

Government Portal (www.gov.il): The government portal was set up in 1998 to create a single entry point for government services on the Internet. The site contains access to more than 1,000 different services, contact lists for various officials, information on new governmental services and an dynamic database of governmental job tenders. The site underwent major changes which included development of expert portals for target audiences such as immigrants and senior citizens. Every government agency is required to present a variety of information to the public on its website, including office hours and locations, including wheelchair-accessible branches,

services given at each office, contact information, links to download forms required for the agency, and information in several languages other than Hebrew. All government websites must conform to WC3 standards which enable the use of all web browsers (IE, firefox, safari, opera, etc.), as well as interfaces for the disabled.

“The Safe”: expected to be launched next year, allows for a secured transfer of official confirmations and sensitive personal information from government offices to citizens and businesses. Surveys have shown that 30% of the Israeli public would like to receive registered government correspondence to their e-mail accounts. The past year has seen the completion of the required infrastructure. Six projects, encompassing six respective government agencies, are pending approval: the tax authority, national insurance, the courts, the labor office and the social worker's union.

Types of information that can be transferred via this system are:

- Official confirmations, such as: tax forms, business licenses etc.
- Matriculation certificates.
- Salary statements for government employees.
- Military reserve mobilization orders.
- Sensitive, personal information such as status of income tax/national insurance accounts, etc.

Government Forms Service: The forms site concentrates forms from all government agencies and provides for the filling and on-line transfer of forms to their designated offices (including an electronic signature and direct sending to the appropriate agency). This eases the public's dealings with the bureaucratic system and eliminates long waits for service in branch offices. It is also easier for the system to provide efficient and rapid service to the public.

Government Payment Server: an electronic commerce system, allowing every governmental establishment to manage an online store, without the need to deal with collection apparatus or security. This way, government agencies can offer the public paid on-line services, products and collection of bonds and taxes via the Internet, without bureaucracy.

The existing services are divided into several categories:

- Payment of taxes and fines.
- Purchase of digital products (certificates, files, paid access to databases).
- Payment for products such as government publications.

Agencies operating online stores include:

- Drivers and vehicle license renewal at the ministry of transportation.
- Weapon license renewal at the home office.
- Traffic fines payments, at the courts administration.
- VAT payments at the Treasury.
- Rental fees at the Israeli land administration.
- Freedom of information act fee at various offices.
- Ministry of defense publications.
- Television and radio tax payments.
- “Yad VaShem” books.
- Maps by the Israeli mapping center.
- Educational television courses.

Many services allow payment by credit as well as direct bank transfer from the private bank accounts (at this stage, only from certain banks). The national payment server processed 3m NIS in 2005, “a world class achievement”, according to Philip Liebman of Gartner Research, Inc.

National Policy and Legislation

The Freedom of Information Act (1998)¹ provides every Israeli citizen or resident the right to information from a public agency. This act is the source of all obligations of public agencies to distribute information to citizens, and regulations pertaining to government websites are also derived from it.

When government information sites began to be developed, ad-hoc legislation was required. This legislation, in the form of financial regulations, is called “financial and market regulation” (FMR). FMRs have been applied to different government departments specifically, while attempting to maintain a general government standard of internet content. FMRs have thus far enabled rapid development of an intra-governmental accessibility and multilingualism standard (see below).

Additionally, the government standards manual was published, which details several technical and content standards all government sites must conform to, including style, interface, accessibility and user-friendliness. Government sites are slowly conforming to this standard.

The Treasury is also contemplating the promotion of the Government Availability Act (see below).

Legal Survey: Government Availability Legislation

As presented in this report, existing information technology allows for a significant improvement in the level of services provided by the government to individuals and businesses. Below, we will present specific legislative advances in the area in the past year, as well as principles and a general framework for the enactment of the Government Availability act, and the regulation of the different aspects of this complex issue².

The Existing Legal Situation in Israel, prior to 2006

The e-government mechanism was based on general legal principles, especially those regulating standards for magnetic information storage technology. The e-Signature act of 2001 was aimed at rectifying legal lacunae which became apparent over the course

¹www.knesset.gov.il/laws/special/heb/freedom_info.htm

²Translated from the e-Government report, 2005, p. 30

of time. This law, which was meant to be a cornerstone of e-government, through its validation of online transactions, provided only partial solutions to the needs of the government, as it did not cover data security, smart cards, and other requirements. Additionally, other related areas, such as electronic ID and government bids, are not treated within the framework of the law. The government attempted to rectify this situation through ad-hoc regulation while attempting to maintain system-wide standards.

E-Government Projects include:

E-Courts

The Courts administration is in the process of creating an electronic courthouse registration system, where attorneys and litigants may send and receive documents pertaining to their business at the courthouse. This system will also use “safe” email addresses.

Mortgage Listing

The buying and selling public has a vested interest in a simple and convenient manner of checking mortgages on property before and after buying and selling. While today, interested parties obtain a paper printout from the mortgage listings signed by an authorized official, the computerized system will offer an electronic version with an appropriate e-signature. A similar system is being devised for the landowner listings.

Online Government Bids

Online bidding has become the norm in retail, and offers an opportunity for a transparent and equal bidding process. The government plans to offer online bidding for the public sector, and the finance ministry has already conducted several such “beta” bids this year to test the bidding system.

The Required Situation: a General e-Government Law

E-Government is unique in that it regulates the relationship between government and citizen online – but it pertains to many different legal areas such as contract law, evidence, damages, etc. Ad-hoc regulation may, perhaps, solve most of the problems, and this is the current mode of operation. The accountant general has instructed the director generals of the various government departments to prepare for the implementation of e-government services in accordance with government directives.

These directives, are set out in FMRs or in ad-hoc legislation (which the government is authorized to impose), according to circumstance. This legislative approach is lacking in consistency and publicity, and is the reason for the promotion of the e-Government act. However, FMRs should be credited with the rapid availability of e-Government sites in Israel.

The Government Standards Manual

According to the Government Standards Manual, information and communication networks – especially the Internet – are a means of transferring information, communication and advertising. Their use is vital to the work of the government, and also facilitates better communication between officials and citizens. These standards define the framework required of a government website so that they may properly represent the government and facilitate civil service. The manual includes instructions on structure, usability, compatibility, resolution, graphics, download content, style, editing information, tagging and accessibility and other required technicalities³. The e-Government department of the Accountant-General's office maintains the standards-manual for government websites. Government agencies should comply with these standards.

³ www.gov.il/FirstGov/BottomNav/MemshalZamin/Report/Standard

The e-Government Act

As explained below, the use of FMRs creates certain problems in regulating e-Government efficiently. The Treasury is therefore promoting the e-Government act, similar to those which already exist in several countries, which regulates the government's relationship with the public online.

The proposed act includes the following chapters:

Electronic ID

A government bid for a new "smart" ID is presently being conducted. This ID will contain two electronic documents, one for identification and one for use as a signature.

Communication

Communication between the public and governmental agencies is, at present, not uniform. Several projects, mentioned above, are aimed at rectifying and regulating the situation.

Monitoring and Benchmarks

A statutory unit for the promotion of e-government was established at the treasury.

Some of its projects are:

- Government tech support. Government agencies waste time and resources solving problems. The e-government agency will provide a central location of tech support for all government branches. This will not only save time and resources but will also promote regulation and uniformity of government web content.
- Promotion. The public is sometimes unaware of e-government initiatives, as well as reluctance among the government agencies to introduce online portals. A central authority may assist overcoming these problems.
- Encouragement and Promotion. Promotion programs, similar to those implemented in several countries offer government agencies and private offices incentives for programs aimed at saving time and resources through e-government. For example, the portal conforms to WC3 accessibility standards, and is thus accessible to sight- and hearing-impaired individuals. This accessibility program, already successful on the general government portal, is being introduced to other government sites.

The e-Government Report

The e-Government agency published its first annual report in 2006, containing a comparison of 35 government websites, including those of all government offices. The comparison included criteria such as forms, payment, and bidding. The e-government report surveys the accessibility and multilingualism standards the sites conform to.

Marketing and Publication

An advertising campaign was conducted on the electronic media for the government portal. Two surveys were conducted to test its effectiveness. 77% of the 1,011 questioned replied that they requested information or services from the government in the past year, and used an average of 2.7 means of communication to that end. 48% used the internet, 40-41% used the offices and their telephones, and 16-17% used e-mails and faxes.

46% of those who did not use the Internet registered no objection to using it, indicating no major inhibition to using the Internet. 42% of those who used the internet reported that all their attempts at contacting the government were successful, as opposed to 58% who were only partially successful.

77% reported they were “satisfied” with government web content, but only 17% indicated they were “very satisfied”, probably because 33% could not find the information they were looking for.

A socioeconomic analysis indicated that awareness is highest among college-educated 50-59 year-old men. Women, natives of the Soviet Union and 18-22 year olds were also aware of the site more than others. Those who surf more tend to be more aware of the site.

A November, 2005 survey, encompassing 1,002 people, showed that awareness to the site was greatly increased by the advertising campaign, as well as use and satisfaction rates. There is, however, room for improvement. The telephone was also used less to contact government offices. Other parameters did not change.

The campaign, therefore, improved awareness of these areas: the existence of the portal, the concept of e-Government, and the use of the Internet as a tool for communicating with government agencies. This improvement was also indicated by increased “hits” on the government portal.

Google's Adwards Campaign

Israel Government Portal, Gov.il, Adwords Campaign, March-May 2006:

Israel promotes repositories of information in the public domain and makes them accessible by all. To this end, a Google adwards campaign was conducted for Israel Government Portal Gov.il. During two months campaign (March-May 2006) the number of visitors and transactions, mainly payments to authorities, more than doubled. The outstanding results of Google adwards campaign take the Israeli eGov experience one step further.

The campaign's objectives were to promote the unique services of the government portal – Gov.il – in different geographic locations, abroad and in Israel, and in different languages. One of the campaign's means was unique promotion for services through text ads: car and driver license, police tickets payments; information on voting location, including maps and addresses; interior office online forms.

Digital Divide

The public and private sectors and the civil society work to provide the necessary resources and take the necessary measures to alleviate language barriers and promote human interaction on the internet by encouraging the creation and processing of, and access to, educational, cultural and scientific content in digital form, so as to ensure that different cultures can express themselves and have access to cyberspace in different languages, including indigenous ones.

The Digital Divide and the public sector: “Lehava” community centers

The Public Sector: “Lehava” community centers

The information revolution is a result of technological advances allowing for storing of information, and its cataloging, analysis, and quick and effortless dissemination.

The digital gap is the one between those who have adapted to the information revolution, to those who stayed behind, perceiving it to be a negative factor. The vision of the “Lehava” project, the Israeli local Community Technology Centers (CTCs), is to lessen the digital gap in Israeli society.

Objectives

- Assimilation of technology, specifically information technology.
- Improvement of technological skills of populations that do not have access to technology, enabling them to be part of the information age.
- Providing access to Hebrew cultural resources to all citizens.
- Advancement of the quality of education, welfare and leisure.
- To increase economic productivity and national product through investment in human capital.

The organizational structure of CTCs is highly flexible. Their organizational affiliation depends on their development, whether as grassroots initiatives, or as part of planned government initiatives. Within governmental CTC initiatives, all centers share leadership and funding, but local CTC managers receive significant freedom in managing the center, recruitment and local initiatives with peer organizations. Despite their small size, CTCs meet the following basic organizational criteria:

A shared vision uniting the member organizations, responsibility for training and support (and possibly funding and resources), and some form of communication and sharing of resources between staff members.

A survey of a sample CTCs was conducted⁴, consisting of 14 local CTCs in Israel. In every center the manager and all instructors were surveyed. Response rate was near 100%, yielding a respondent number of N=56. CTC project leaders and policy makers can draw the following practical lessons from the research:

- Successful implementation of Internet by CTC staff is the combined result of many factors. A well-made plan of Internet implementation should devote efforts both to "hard" issues such as technology resources and formal training, as well as to social issues such as norms and general attitudes. Attention must be given to multiple levels: the level of the individual employee, his or her skills and attitude, the level of the Internet implementation process and the people directly involved in educated CTC staff, and also the level of the whole organization, including the deeper, more permanent characteristics, for instance, is the culture and ethos of the organization supportive of innovation?
- No matter how intensive managerial efforts to promote implementation might be, they will not be effective unless they are visible to the targeted staff and perceived by them as supporting their work with technology. Communication lines between management and employees should remain open. Awareness of CTC workers to initiatives carried out in other centers, creates a dynamic atmosphere. Eliciting feedback from staff and involving them in the implementation planning process are ways of learning what employees see as a Climate that promotes IT implementation.
- Cultural norms and values strongly affect the implementation process. Norms are to a large extent set from the top, by leadership, through the choice of strategic goals, management style and criteria for individual and organizational success. Cultural traits are not easy to change, but with a strong leadership, cultural change is possible.

⁴ Ido Levi, PhD dissertation. Tel Aviv University

Promoting cultural norms that reflect a willingness to take risks, commitment to experimentation and trying new things, and delegating more autonomy to employees may have a positive influence on IT implementation.

- Knowledge is critical for Internet implementation. Since CTCs are small, young and usually low in resources, they can benefit greatly from sharing knowledge with the outside environment. CTCs that have a high degree of knowledge sharing with the outside environment are more likely to succeed in IT implementation. Policymakers should encourage and support cooperation and creation of knowledge sharing networks between centers inside the CTC community, as well as strong links between CTCs and other institutions such as IT firms and academic institutions. The following steps are possible:
 - Creating forums for CTC personnel to meet and share ideas and problems
 - Holding conferences for project leaders, workers, volunteers, and partners
 - Organizing workshops where experienced CTC staff can pass on their knowledge
 - Online tools – creating CTC online networks containing resources, benchmark studies of CTC programs that work, evaluation tools, web forums for exchange of ideas.
- Programs for Internet training of CTC staff should consider that integrative, informal ways of learning are more useful to this population than formal, structured instruction. Time should be allocated for free practice and experimentation of CTC workers with the technology they are intended to use. CTC staff should be encouraged to find creative uses for technology, and should be given sufficient access to computers and Internet, outside their work as instructors, in order to gain expertise and integrate technology into their work.

The Digital Divide and the Private Sector

Private organizations in Israel established mechanisms to facilitate universal access to the Internet for disadvantaged and disabled population groups. Dozens of local initiatives by nonprofit organizations and commercial firms are active in various communities, facilitate community access and reach out to almost all levels of society.

The Israel Internet Union, chaired by Dr. Amir Etzioni, promotes Internet accessibility for the disabled and coordinates efforts in the area. For example, the Union encouraged “Israel Accessibility”, which promotes accessibility for the disabled in Israel, to extend its activity to websites. The Union also promotes Internet use among the elderly, in conjunction with the ministry of education and school students.

According to Etzioni, the “digital divide” is still very present in Israeli society, especially among the ultraorthodox and Arab minorities. Additionally, new immigrants tend to shy from government business online, especially due to the language barrier.

Children

A 1992 report on computerizing the school system recommended the use of computers in all schools. The Chief Officer of Science and Technology in the Ministry of Education was entrusted with implementation of the recommendations. A computerization program operated between 1994 and 2002, and included the following principles:

1. The physical infrastructure will be installed in all schools, including rooms, network and electric infrastructure.
2. Hardware and software should be purchased to achieve a ratio of at least one computer per 10 students in schools, and one computer per kindergarten.
3. Teachers should be trained to use computers, and lesson plans utilizing them should be developed.

The plan, which ended in 2002, involved the local councils and the Israel Lottery, as well as the ministry of education.

By the end of 2004, there was a ratio of 11.5 students per workstation. The science and technology administration at the ministry of education estimated that 60% of the computerized schools had a broadband internet connection, i.e. 1700/2800 computerized schools, and 1700/3710 schools in the country. High schools are generally connected to the internet (almost 100%).

Computer/Student Ratios, June 2004

Workstations per student.	Workstations needed to achieve a 1:10 ratio	Workstations active	Workstations purchased	Number of Students	Number of Schools	Age Group
11.9	15,598	56,240	54,428	725,939	2,088	Elementary
12.6	3,423	10,243	9,102	129,700	261	Junior-High
10.8	4,056	26,923	26,272	294,572	395	Six Year post Elementary School
11.1	3,248	14,354	12,025	197,080	723	High School
6.3	104	2,470	2,359	16,343	243	Special Education
11.5	26,429	110,230	104,186	1,363,634	3,710	Total

Partial statistics exist because computers and Internet connections for schools are purchased and maintained by local initiatives funded by the local councils, schools, and commercial firms, not the ministry of education. Israel's schools contain more computers, but less Internet connections, per student, than most developed countries.

Curricula

Schools in Israel today are not required to teach computer science. However, schools are required to include computer literacy skills in their teaching, and curricula⁵ exist teaching information technology, computer literacy, and computer science. The existence of infrastructure, curricula, and trained teachers, should enable the schools to further the instruction of all three areas. A book of standards defining the basic computer skills schools should teach has been included in grade school curricula this year.

The Cost of Connecting a Computer Laboratory to the Internet

Connecting a computer laboratory to the Internet requires a onetime payment for a router, a monthly payment to an ISP, and a monthly payment to the provider of the ADSL/Cable line. These costs vary according to ISPs and packages selected, and can reach 500NIS/month.

The cost of connecting all workstations in all schools in Israel is estimated at 36-24m NIS/year (12 months). Most schools are, at present, connected to the Internet anyway, thus reducing connection costs. The schools which are not connected to the Internet may not be interested in such a connection, or might be located in areas which presently lack the infrastructure; composing a more accurate cost model requires some time and research.

⁵The National Committee on Information Technology, a survey of the digital divide in Israel, www.maor.gov.il

The Elderly

There are 700,000 elderly people in Israel, and approximately 20% of them use the Internet. Local councils operate hundreds of day centers for the elderly, serving over 10,000 elderly people. Some have computers, but it is not known how many are connected to the internet. The Israel Lottery defined a new aid goal in 2004: the computerization of all day centers for the elderly built by the Lottery. Day centers are not operated or monitored by a central authority, and are subject to local councils.

Computer Literacy Promotion Projects

There are several programs designed to promote computer literacy among the elderly⁶:

1. Inter-generational programs for young people and the elderly, using the Internet to promote Israeli international policy in international public opinion or to record oral history, conducted in and out of schools. These programs are voluntary and financial compensation for participants would probably further their implementation.
2. Computerizing day centers for the Elderly.

E-Government in the Service of the Elderly

The Government portal allows the housebound to conduct official business from home. Standardization of all government sites should make their use easier and more accessible to the elderly, who comprise 10-15% of the government portal's users. The National Insurance Agency's website, for example, receives thousands of hits a day, and is accessible and straightforward, as does the Ministry of Health's geriatric site. Intranets in rural areas allow the elderly to participate in communal life, despite being housebound. This was especially true during the last crisis along the northern border.

⁶ A Knesset science and technology committee session, November 2004: (www.knesset.gov.il/mmm/doc.asp?doc=m01567&type=doc). Cf. The Central Bureau of Statistics, *Statistical Almanac 2006*, The Brookdale Institute, *Statistical Almanac of the Elderly in Israel, 2005*. See also: www.knesset.gov.il/protocols/data/rtf/mada/2006-10-17.rtf and www.gilhazahav.co.il

Cooperation and Costs

As in many other areas, the greatest challenge of digitization and computerization is the pooling and management of resources. Calls for central committees to map supply and demand and direct activity have been made. Many nongovernmental organizations have been involved in this area for years. Teaching and training are sporadic, and directed at citizens from all walks of life.

An anecdote may illustrate the situation. Despite a decision passed at a meeting of the Knesset science and technology committee in October 2004, to establish an online database of technological aides for the disabled, the government did not comply and did not contribute information from its various agencies, such as the National Insurance Agency and the Treasury. Information was compiled by nongovernmental organizations, which employed disabled individuals in entering data. The government, despite repeated requests, has yet to supply information or resources to this project. This anecdote reflects on government policy as a whole.

Funding requests from these voluntary organizations were not met with the appropriate responses. Although government agencies promised funding, they did not live up to these promises. The Knesset's technology committee discussed these broken promises.

Pooling of resources is essential in order to prevent duplicate initiatives, and requires the cooperation of the public, private, and voluntary sectors, in coordination, innovation, and fundraising, respectively.