

# UNBUNDLING E-GOVERNMENT SERVICE DELIVERY IN DEVELOPING COUNTRIES: DEVELOPMENT FRAMEWORK AND MARKETING STRATEGIES

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## Abstract

*E-government service (“e-service”) delivery is a new concept for both policy makers and citizens. While governments, especially those in developing countries, are rushing to provide e-services, they need to address some critical issues and confront major challenges in e-service delivery initiative. Based on a case study of the Cape Gateway Project in South Africa, this paper proposes a systematic approach to developing e-services and looks at strategies for marketing them.*

*Keywords: E-government, E-service, Framework, Marketing.*

## **1 INTRODUCTION**

Developing countries are embracing e-government to rapidly transform the delivery of government information and services (collectively referred to here as “e-service”).

In providing e-services, the foremost concern is to ensure that e-services are made available to all (“E-Service for ALL”). Crafting e-government that does not leave behind certain segments of the population is bound to yield greater success than “ad hoc and passive postures” (Hanna, 2003). To enhance the achievement of this goal, e-government projects need to adopt a systematic approach to developing and providing e-service. Once a systematic e-service delivery approach has been developed, it can also be used for benchmarking and impact assessment. While the various governments may have adopted different approaches, a search of the literature does not seem to indicate the existence of a methodical approach that can guide developing countries, particularly those in Africa, to facilitate the development of this “new way” of providing government service. We make an effort in this paper to address this point. Specifically, starting with our examination of a successfully developed and operational e-services system in South Africa, we propose a systematic approach that can be adopted and, where necessary, adapted by other developing countries’ e-services development initiatives.

Drawing from the Cape Gateway Project (CGP), which is an e-service initiative of the Provincial Government of the Western Cape (PGWC) of South Africa, we produce a diagrammatic contextual model of the CGP system and then use that to derive, in a bottom-up way, an overall framework of the systematic approach.

The framework and the contextual model of e-government service delivery are used to illumine the marketing of e-government services through the CGP. In addition, using CGP as an illustration, we discuss e-service branding and marketing. Judging by our experience with CGP, these are important issues that e-government practitioners in developing countries are grappling with.

## **2 LITERATURE REVIEW**

Generally, the customer-citizen’s encounter with government e-services depends on numerous factors, including the stage of the adoption process (Curran and Meuter, 2005). In the early stages of adoption, not only do citizens require awareness about available e-services, government workers need to be encouraged through training to deploy such services well. Without question, the effective deployment of e-services will lead to reductions in labour costs and frustrations with the slow pace of government service provisioning. In this section, we focus on issues in the development of e-services provided by governments and in the marketing of the services.

### **2.1. Branding and Advertising of Government Services**

The delivery of quality e-services on an equitable and sustainable basis remains a huge challenge for most governments. Inherent difficulties lie on the road to achieving true digital government. In order to stimulate widespread adoption of e-service, effective communication strategies are needed (Eechambadi, 1994;Galbi, 2001). Given that governments have many ways to communicate their policies, contrasting viewpoints can easily filter through to citizens if communications channels are not refined. The need for governments to develop marketing brands is now viewed as a key part of an effective communication strategy (Galbi, 2001)

The power of advertising in changing the public's view of a brand has been acknowledged in the literature (Miller and Berry, 1998), and studies in marketing effectiveness suggest differences among approaches, media and even individuals (Woodside and Ronkainen, 1982, Montgomery, 2000, Edens, 2000, and Miller and Berry, 1998). The provision of tailored or customized marketing is therefore a growing trend, especially in diverse societies. These differences justify and call for the use of different targeted awareness generating approaches for e-services, especially in the extensive diversities that usually characterize developing countries.

## 2.2. Issues in e-service delivery development

In designing, managing and promoting government e-services, (1) quality of e-services (2) speed of diffusion and adoption, (3) equality in service provision, (4) quality of the medium and (5) e-service content are all critical pillars for the creation of sustainable architecture for the supply of and demand for the services (Ancarani, 2005). In addition, the unintended lag time in the adoption of new services as customers learn the new service delivery formats is a uniqueness in the provisioning of government e-services in developing countries (Curran and Meuter, 2005).

Clearly, a flawed approach to this function would be to assume that e-service awareness, distribution and access in Africa should follow a predetermined path of e-government development as observed in developed countries. The same seems true of the development approach. Given the similarity in the profile of the citizens of African countries, with respect to ICT, it may be more appropriate to adopt e-government development and marketing approaches that have worked in other African countries. This justifies our use of the CGP case to propose a guiding methodical approach for e-services provisioning in developing countries.

## 3 THE CAPE GATEWAY PROJECT

E-service delivery by the PGWC is a huge and complex problem, with no less than 500 different services believed to be provided through its numerous departments. The CGP initiative aims to provide an e-services platform for all of the services. The PGWC provides these services to different categories of service users, or consumers.

The Center for e-Innovation (Ce-I) is tasked with the CGP initiative. Ce-I produces the services either itself or with the involvement and assistance of third parties. The services are then made available to users, who normally access the services through multiple distribution channels (e.g., Websites and portals, e-mails, radio, call-in centers, walk-in centers, etc.). Additionally, strategies are developed and used to market the services to the various categories of service consumers.

With the CGP, service provisioning reduces to matching many services to many consumer-categories, with the transport of e-services to consumers mediated by many access channels. The e-services that are transported to and ultimately used by consumers depend on a number of factors: the services, the marketing, distribution and access mechanisms, and the consumers. For example, for the CGP, valuable city information is provided online via the portal and at the walk-in centers.

The methods and channels through which e-services are distributed to and accessed by consumers are determined by the types of service and the electronic profile (e-profile) of users (we take this as the capability of users to consume and benefit from information and communications (ICT)-enabled services). E-services in the CGP are grouped into five categories. In the WCP, the citizens access digital government services via three main channels: the walk-in centers, call-center and a web-based portal.

As in the case of distribution and access, the types of service and the e-profile of consumers determine the marketing channels. For example, the huge historically disadvantage groups rely to a large extent on more traditional channels, such as radio, community publications, word-of-mouth, etc., and on walk-in centers and call centers to receive awareness information. On the other extreme, urban residents who have access to and browse the Internet are targeted through the Web portal.

From the foregoing description of the CGP, the following picture emerges: Service providing units in the PGWC are confronted by the challenge of providing a *myriad of services* through *many distribution, access and marketing channels* to *various categories of service-users*, with each category possessing a set of profiles that differentiate it from the other categories. The entire effort is coordinated and developed by and harmonised through the Ce-I. From this, we develop a diagrammatic model of the CGP context.

### 3.1. Contextual Model of the CGP

The contextual model is a model of a particular context of interest. It shows the e-service variables of that context and the connections between variables. At the contextual modelling stage, no instance values are assigned to the variables captured in the model. Our contextual model for the CGP is shown in Figure 1.

This task of variable instantiation builds on the context model and consists simply of identifying the possible values of variables, choosing the values that are suitable or applicable for the context and then assigning the values to the variables. It is the last phase of designing the actual context of e-service provisioning.

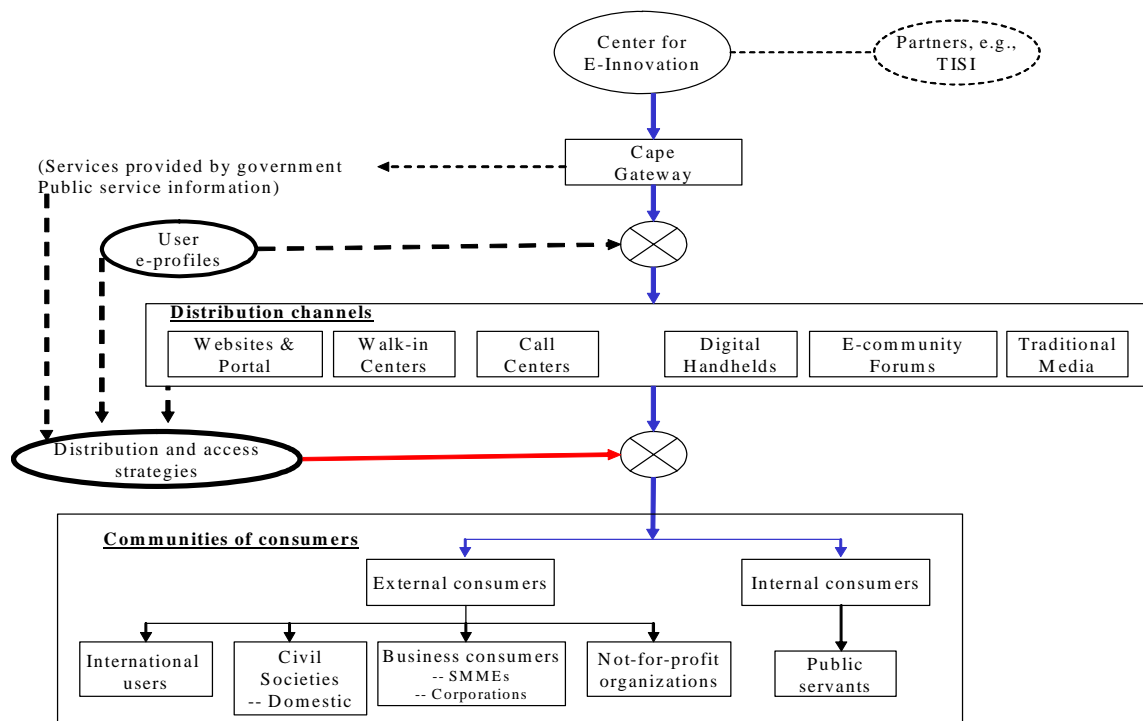


Figure 1. A Contextual Model of E-Service Delivery through the CGP

The CGP initiative suggests a straightforward systematic or methodical approach to developing and providing government e-services. We propose the approach in the next section.

### 3 SYSTEMATIC APPROACH

To render the problem of developing and providing e-services tractable, the adoption of a systematic approach that guides the process is crucial. Drawing from our experience with the CGP, we find that such an approach calls for using an overall framework, a model, and marketing strategies. The proposed approach specifies a top-down process and can be used to guide developers and providers of e-services.

#### 3.1 Methodical Approach

Our approach is shown in Figure 2. First, a framework showing the key modelling issues in developing e-service delivery needs to be developed. Next, a model of the e-service delivery context is developed from the framework. The model provides a description of internal organizational structure, key partners, service providers, service channels, service distribution and access approaches, marketing strategies and users. The model considers the relationships between key stakeholders involved in the delivery of the e-service platform. Policy-makers, designers and providers can use the model as a roadmap on e-service delivery.

To make the framework relevant to a particular e-service delivery scenario, the variables and features specific to the services context must be determined and instantiated with values that are also specific to the particular context.

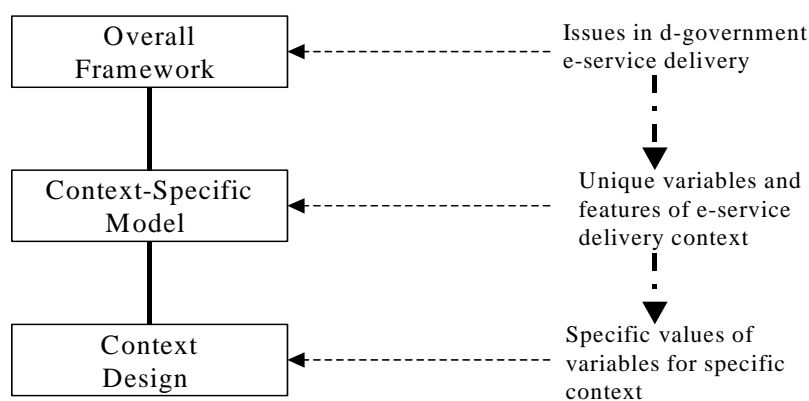


Figure 2. Methodical Approach to Developing E-Services Delivery

#### 2.2 Framework, Model and Context Design

##### 2.2.1 Framework

Our overall framework is shown on Figure 3. Comparing this figure to the context model of Figure 1 shows how we have derived it from the CGP context model in a bottom-up abstraction. The framework proposes the use of a dedicated government unit charged with the task of providing e-services to consumers to oversee the production of the services, to coordinate and promote the services, to serve as the owner of the service platform, and to intermediate between users and the e-services. Depending on the available skills set and resources within the unit, it may be necessary to produce the e-services with the help of external partners. The services can then be made available and marketed to users through multiple channels. It is also suggested that strategies be developed and used to market the services to various categories of service consumers. Finally, the framework indicates that the e-services and the distribution, access and marketing approaches depend on the e-profile of users and, as such, must be designed to be consistent with the e-profiles.

<sup>1</sup> A description of the Cape Gateway Project is given in the appendix.

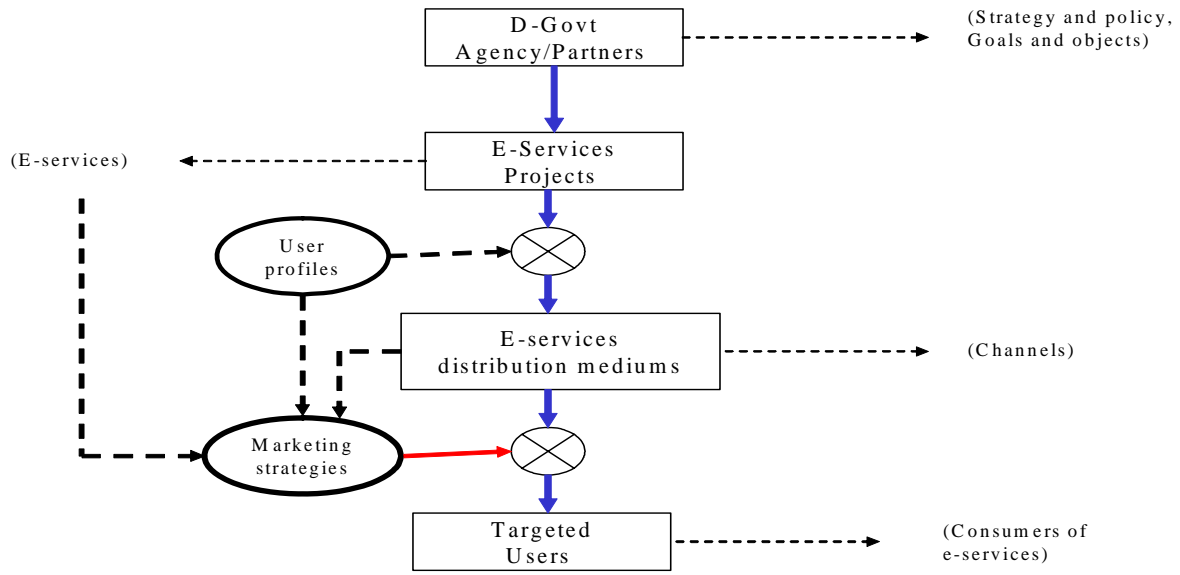


Figure 3. Overall E-Service Marketing Framework

### 2.2.2 Model

Following on the framework, a model like that of the CGP in Figure 1 can be developed to describe the particular e-services delivery scenario. The model is essentially a description, diagrammatic or otherwise, of the framework as it pertains to the specific scenario. Table 1 shows the descriptive model that we deduce from our framework. This model is a formal textual transcription of the diagrammatic representation used in Figure 1. Both are therefore equivalent.

Table 1: Descriptive Model of Context

<p><i>Government Unit variables:</i> {unit_name}</p> <p><i>Partner variables:</i> (partner: {name_list})</p> <p><i>E-service project variables:</i> {project_name}</p> <p><i>E-service variables:</i> {information, information-based service}</p> <p><i>User variables:</i> {e-profile}</p> <p><i>Marketing channel variables:</i> (channel-type: {name_list})</p> <p><i>Marketing strategy variables:</i> (marketing-method: {name_list: description})</p> <p><i>Distribution-and-Access variables:</i> (distribution-method {name_list})</p> <p><i>Consumer variables:</i> {(external user-type: {name_list}), (internal user-type: {name_list})}</p>
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### 2.2.3 Context Design

In the final phase of the proposed approach, the variables of the contextual model are instantiated with actual values to design the actual e-services delivery context. For the CGP, for example, the design is shown on Table 2.

## 4.0 DISTRIBUTION, ACCESS AND MARKETING

### 4.1 e-Service distribution and access

According to our framework, the channels for distributing and accessing e-services are determined by the services and the e-profiles of users. As an example, for users who have Internet access and can browse

the Web, provision should be made for the distribution of and access to services via Web portals and Websites. Table 3 gives further examples.

Table 2: Design of Context

<p><i>Government Unit variables:</i> {Ce-Innovation}</p> <p><i>Partner variables:</i> (partner: {The information society institute, Radian})</p> <p><i>E-service project variables:</i> {Cape gateway project}</p> <p><i>E-service variables:</i> {Tax-filing, HIV-AIDS messages, tourism information, job-vacancies, etc }</p> <p><i>User variables:</i> {Own and able to use phones (fixed or mobile), Internet Access and able to browse the Web, Unable to process online information, etc.}</p> <p><i>Marketing channel variables:</i> (channel-type: {Newspapers, Radios, Phones, Community magazine, the Web, etc})</p> <p><i>Marketing strategy variables:</i> (marketing-method: {Roadshow: description, Desk-side coaching: description, etc. })</p> <p><i>Distribution-and-Access variables:</i> (distribution-method{Call-centre, walk-in-center, Web Portal, Website, etc})</p> <p>Consumer variables: {(external user-type:{Citizen-consumer (disadvantage user, advantaged user, Tourist (foreign, domestic), business–visitor (foreign, domestic)); Business-entity (SMME, Corporation, Not-for-profit, etc), }),(internal user-type: {public servants})}</p>
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Table 3: E-Service Distribution and Access Channels

E-Services Supported	User e-Profile	Distribution and Access Channels	
		Types	Variable
	List of examples only (non-exhaustive)		
Informational (E.g., tax filing information)	- Own and able to use phones (fixed or mobile)	Call Centers	Phone lines
Informational & Service	- Have access to the Internet and able to browse the Web	Internet	Web Portal
Informational & Service (E.g., tax filing information and help with filling tax form)	- Cannot browse the Web or - Unable to process online information or - Unable to perform required physical or mental task	Walk-in	Physical Locations

#### 4.2 e-Service marketing (awareness generation)

As with distribution and access, the channels for marketing e-services depend on the services and the e-profiles of the potential users. As an example, for individuals who can read and understand local languages, community publications in the indigenous language can be used to market the services. Table 4 lists a few more examples.

The marketing slogan for the CGP is “easy access to government information and services.” In the rest of this section, we discuss marketing strategies for e-government services.

For marketing to be effective, it must be considered in a given context. As we found from the CGP, the effort to make e-services available to and accessible by users and getting them to actually utilize the services require extensive and effective marketing, driven by strategies that target users according to specific e-profiles to create awareness of the services. Effective strategies can be developed when marketing channels, the specific e-profiles of users, and the specific e-services that exist in the context are taken into consideration. For example, marketing the CGP involves understanding the key functions of its three main channels of information dissemination and service provision (i.e., the Walk in Centre, Call

Centre and Web-based Portal<sup>2</sup>), the profiles of the different classes of users, and the nature of the services to be provided.

Table 4: Channels for Awareness Generation

Supportable Type of e-Service	User e-Profile	Awareness Channels	
	Attributes used to target consumer groups	Types	Variable
		<i>Traditional:</i>	
Informational	- Able to read		Newspapers
Informational	- Have access to and listens to radio		Radios
Informational & Service			Events Exhibitions
Informational	- Able to read and understand language of the publication		Community & Special Publications
Informational	- Recipient of information from “authoritative” or trusted figures - Belongs to a “buddy system”		Third Party Testimonies
		<i>Signage:</i>	
Informational	Able to read		Static
Informational	-ditto-		Dynamic

Furthermore, in marketing e-services, it is necessary to classify users as either “external users” or “internal users”, as shown earlier in Figure 1, and then to design the marketing strategies accordingly. Internal marketing strategies focus on government employees while the outward-looking external marketing strategies focus on civil society, community organizations, businesses, etc. In the following, we briefly discuss some of the strategies that the CGP uses.

### 4.3 Internal Marketing Strategies

#### 4.1.1 Roadshow

The essence of internal marketing is buy-in from management. If management adopted and internalized CGP they will automatically become advocates of e-service. This was done by means of “roadshows” to all departmental management, where CGP was showcased as an essential tool for delivering effective services to citizens. CGP is pitched to managers as belonging to them, not as an ad-hoc service, but an essential and integral one.

#### 4.1.2 Desk-side coaching

Desk-side coaching was done with the Premier of the PGWC and all his ministers. This constituency serves as an important mouthpiece of the Provincial Government, and once they realize the value of CGP as users themselves, it empowers them to market the service in their speeches, annual reports, etc.

#### 4.1.3 Evangelization-by-proxy

In order to obtain the necessary support from both government and political leadership, departmental communication officers were targeted, as they are the “evangelists” of the department and often in a position of influence.

<sup>2</sup> The portal was launched by the Center for e-Innovation in March, 2004 (Vosloo, 2006).

#### 4.1.4 Targeted general-purpose advertisements

The staff of the PGWC is targeted through various media, including intranet, e-newsletters, posters in public buildings and promotional material like mouse-pads, stress balls, pens, etc.

### 4.2 External Marketing Strategies

#### 4.2.1 Education

A study conducted by Webcheck (2003) for the PGWC suggested that citizens knew very little of government services or even who provided which government services. Educational campaigns are therefore run in newspapers (especially community newspapers) and interviews are conducted on community radio stations. Similar campaigns are channeled through conventional newspapers and radio advertisements, with a stronger focus on the branding.

#### 4.2.2 Call to corporate social responsibility

Another significant aspect of the external marketing strategy was public-private partnerships. The CGP called on private enterprises to meet their social responsibility. The line pitched was that the media had an obligation to educate their readers and audience, because the CGP was in the interest of all the citizens of the province. As a result, strategic partnerships were established with two top media owners for a discounted advertising rate.

## 6.0 CONCLUSIONS

Based on a case study of the CGP, this paper proposed a systematic approach to developing e-services and looked at strategies for marketing them. The ability to successfully deliver citizen-centric e-services also requires a systematic evaluation of the performance of the marketing channels and how they respond to citizen demands. This requires comprehensive market-based research evaluation. We have slated this as a future study.

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