A Generic e-Government Process Based on Case Studies

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Abstract

E-Government implementation pursuit is rising because of its potential and positive impacts. However, the complexity surrounding its implementation process is the same worldwide and little attention has been focused on defining e-Government implementation process and subsequent outline on how to tailor the process based on specific user needs and requirements. Due to extensive challenges arising from the tailoring and implementation process of e-Government, this paper examines the e-Government processes of Australia, Canada, Malaysia, Singapore and Korea in order to derive stages and activities for e-Government process. Based on the survey results the paper proposes a generic e-Government process and discusses the tailoring of the generic process to meet the specific user needs and requirements.

Keywords: e-Government, process, governance, citizen-centered, and tailoring.

1. Introduction

E-Government presents a new and innovative approach in using Information and Communication Technology (ICT) to address traditional problems in government services. Its positive impacts significantly increase its pursuit for adoption. However, e-Government requires a deep and sound judgment to transform the government. It needs thorough and critical examination of the organizing principles, government system and power. And also the formulation of the objectives, what the government is to deliver and efficient re-allocation of the resources available. E-Government provides integrated customer service, with a single point of entry. It facilitates more accessibility to government services and allows greater public accessibility to information, making the government more accountable to citizens. ICT application to all aspects of a government improves business efficiency and effectiveness as well as policy and program outcomes. Therefore there is need for a generic e-Government process to tailor to meet user needs and requirements so as to realize the benefits of e-Government.

Technology has the power to renew and redefine the relationship between public services and citizens, but adding real value is only by focusing on people and having them at the heart of public service development, from conception through the implementation and ongoing review. The government should deliver high impact services, designed around customers’ needs and making them available on trusted access.

This paper examines the e-Government processes in Canada, Malaysia, Australia, Singapore and Korea in order to identify the success factors that contributed to the successful implementation of e-Government therein. Based on the survey results, the paper proposes a generic e-Government process for wide application, as well as discusses the tailoring of needs and requirements to fit into the process.

Table 1. Detailed Explanation of related work on e-Government implementation

<table>
<thead>
<tr>
<th>Author &amp; country</th>
<th>Main focus</th>
<th>Focus items</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salleh Malaysia</td>
<td>Conditions of efficient e-Government implementation</td>
<td>Policy review, institutional strengths, human resource development, ICT technology changes, locality environment, and cultural concerns</td>
<td>Only described effective implementation conditions With no process to prove the condition.</td>
</tr>
<tr>
<td>Song Korea</td>
<td>Structure and process of e-government implementation</td>
<td>Process: implementation, pre and post implementation stages Structure: single window portal</td>
<td>Only defined abstract implementation process that is not sufficient to guide implementation</td>
</tr>
<tr>
<td>Okot-Uma U.K</td>
<td>E-Government transition features</td>
<td>Stakeholder requirement statement and basement assessment.</td>
<td>Identified transition features with no process to prove them.</td>
</tr>
<tr>
<td>Nyaboga U.S.A</td>
<td>Implementation influencing factors</td>
<td>online presence, basic capability, service availability, mature delivery and service transformation</td>
<td>Focused on e-Government influencing factors not process.</td>
</tr>
<tr>
<td>Grunden Sweden</td>
<td>Get people's opinion on e-Government</td>
<td>current knowledge, and attitudes towards e-Government</td>
<td>Only focused on e-Government social and technology issues.</td>
</tr>
</tbody>
</table>
The remainder of this paper is organized as follows: Section 2 is the related work. Section 3 gives details of the survey carried out on the five identified countries. Section 4 gives all the details of the proposed e-Government implementation process. Section 5 discusses the tailoring of the proposed generic implementation. Section 6 is the conclusion.

2. Related Work

The related work on e-Government implementation on Table 1 focused on efficient conditions for e-Government implementation, prospects and limitations of e-Government initiative in Korea, e-Government transformation features, e-success factors, and the need to know peoples’ attitudes prior to e-Government implementing e-Government. None of them talked about complete step by step e-Government implementation process. Details on related work are on Table 1.

3. Survey of e-Government implementation processes

Asian countries focused on knowing their status e-Government development. They used Olympic medal analogy categorization [Salleh 03]. First category was “Gold Medalists” characterized by sound and authentic implementation of e-Government and included Singapore, Australia, Japan, Korea and New Zealand. Second “Silver Medalists” category which puts policy to implement e-Government included Malaysia, Taiwan and Hong Kong. Third “Bronze Medalists” category characterized by limited online presence and includes India, China, Indonesia, Philippines and Thailand.

Malaysia is known for success in e-Government because it recognized that people, systems and processes are critical success factors that must be considered when constructing e-Government because it finally requires their deployment [Wood-Harper 06].

Global study was done on e-Government maturity on 23 countries based on four groupings [Grunden 05]. The groups consisted of innovative leaders which included Canada, Singapore, and U.S.A; visionary challenges which included Denmark, Finland and Norway; emerging performer which included Spain, New Zealand and Japan; platform builders which included Italy, Portugal and South Africa. Canada with score of 72% is ranked highest country in e-Government services efficiency and the most developed and integrated government website. USA government portal operates along service oriented lines.

The Accenture survey done on access to online government services on 31 countries revealed that more than half of the population in Denmark, Singapore, Sweden and Norway; 40% of the population in the USA; and 40% of the population in the USA, Finland, Canada, and Australia have used e-Government [Nyaboga 06].

Malaysia has strong leadership and ability to use policy to implement e-Government Australia has recognition both as a visionary follower and by sound and authentic implementation of e-Government Canada has been recognized as a world innovative leader in implementing e-Government, and received the highest rank, scoring 72% in efficient e-Government services with the most developed and integrated web site. Korea and Singapore globally lead in sound and authentic implementation of e-Government with strong political will and leadership; innovative leaders in implementing e-Government respectively. Singapore received Explorer Award for successful, innovative and user-friendly initiatives in e-Government as well as aggressive and relentless in improving public service.

The success of the above countries in different aspects of e-government motivated us to focus on the e-government process they have used. We thought of having two phases of the study, the first phase to focus on medium size countries which have succeeded in e-Government implementation and second phase to focus on large size countries. Therefore we selected Canada, Malaysia, Korea, Australia, and Singapore for phase one of the study for this paper. Regardless of their size these countries the world recognize their success in establishing e-Government in their Cabinet Offices. Furthermore they have their information on e-Government development readily available online. Benchmarking them for generic e-Government process is an important strategy to follow rather than reinvent the wheel. The second phase will include U.S.A, Japan, Germany, United Kingdom, and India for our next paper.

The above survey reveals that countries focus on different aspects of e-government based on their objectives. Therefore the remaining part of this section will cover survey on e-Government processes used by the selected countries to achieve their varied e-Government aspects. We intend to document the processes stages and their activities and thereafter select what we need to include in our proposed generic process and add what we think is missing in the processes but critical to be included in our process.

In the following, the numbering of the extracted stages and steps for the e-Government development process of Canada, Australia, Singapore, Malaysia and Korea begins with ‘C’, ‘A’, ‘S’, ‘M’ and ‘K’ respectively.

3.1 Canada

C1. Setting the course: C1.1 Set national objectives, C1.2 prioritizing objectives, C1.3 Specific national focus.

C2. E-readiness C2.1 Assessing e-readiness.


C4. Addressing key issues: C4.1 Governance structures, C4.2 Common technology infrastructure, C4.3 Service transformation and improvement, C4.4 Human capital management, C4.5 Policy frameworks [Turner 02].

3.2 Australia


A2. Capacity development: A2.1 Assessing existing infrastructure A2.2 Assessing required infrastructure, A2.3 Facilities, A2.4 Human resource, A2.5 Processes and systems.

A3. Delivery and review: A3.1 Channel management, A3.2 Service standards, A3.3 Monitoring and review of outcome measures [Aus DoFA 06].
3.3 Singapore

S1. Initiation Stage: S1.1 Publishing information online, S1.2 Setting up e-Citizen portal.
S2. Infusion stage: S2.1 Action plan, S2.2 Earmarking fund, S2.3 Setting up e-Government policy committee, S2.4 Pro-enterprise paneling and powering, S2.5 Central monitoring and managing, S2.6 Bridging digital divide.
S3. Customization stage: S3.1 Leveraging agencies’ knowledge, S3.2 Collaborating across agencies’ boundary S3.3 Incorporating CRM in e-services [Ke 04].

3.4 Malaysia

M1. Conceptualization and planning stage: M1.1 Negotiating and evaluating team, M1.2 Selecting of systems integrator and vendors.
M2. Start-up development and implementation: M2.1 Clarification of concept, M2.2 Initiative implementation plan, M2.3 Searching partner.

3.5 Korea

K1. Preparation: K1.1 Selection of priority tasks, K1.2 Development of detailed plans, K1.3 Preparation of promotion.
K2. Foundation building: K2.2 Promotion of BPR/ISP, K2.2 Establishing infrastructure, K2.3 Improving laws and systems.
K4. Innovation and integration: K4.1 System integration, K4.2 Process innovation, K4.3 Service innovation.
K5. Innovation and evaluation: K5.1 Integrated service, K5.2 Government innovation, K5.3 Evaluating results [Young 06].

E-Government process survey results reveal that each country uses different process based on the objectives they intend to achieve. This makes it very difficult for other countries wishing to implement e-Government to decide which process to use to realize their objectives, because the challenges faced during implementation are not available to help them compare these processes in order to select one that is best for their purpose. Both developed and developing countries have failed in e-Government implementation mainly due to lack of a generic e-Government process to guide them in their implementations [Harper 06]. To date the problems have reached a crisis point and cost and complexity of enhancing government services is continuously growing and the chances of gaining real value from e-Government is drastically going down. Governments can no longer afford to ignore these problems. Therefore there is need for a generic process that can be applicable across the board and tailored to achieve set goals. This paper gives an approach for creating an integrated process by incorporating bits and pieces from the surveyed processes.

4. Proposed e-Government development process

E-Government projects implementation should go through the following five stages; 1) Initiation Stages, 2) Preparation Stage, 3) Planning Stage, 4) Development Stage, 5) Delivery and Feedback

The high-level view of the proposed e-Government implementation process that consists of the above stages is shown in Figure 1 and the detailed justification for the structuring of the process is carried out in Section 4.1.

4.1 The workflow of the proposed e-Government implementation process

We did a survey on principles used and lessons learned in implementing e-Government on the five selected countries. The survey was intended to give abstract e-government process items that are critical to consider for successful implementation.

Canada's principles: Government commitment, connection to all, cost reduction, service automation, development improvement, society transformation, and integrated network [Turner 02].
Canada's lesson learnt: Leadership and vision, collaborative framework, clear policy, evaluation tools, implementation approach [Turner 02].
Australia’s principles: Dedication, customer focus, accessibility, distinctive government, client needs, new technology, partnership [Aus DoFA 06].
Australia’s lessons learnt: Leadership and vision, policy, goals, clear plans, leadership body, management process, government reforms, incremental transformation, collaboration, harmonization, training, capacity building [Aus DoFA 06].
Singapore’s principles: Service provision, network delivery, customer needs, visit reduction [Ke 04].
Singapore’s lesson’s learnt: Committed leadership, vision, communication, stakeholders’ contribution, digital divide reduction, political will, agency integration [Ke 04].
Malaysia principles: Citizens focus, service accessibility, social inclusion, information reliability, and efficient resource use [Wood-Harper 06].
Malaysia lesson’s learnt: Incremental transformation, e-readiness, steady progress, mindset change, and strong project team [Wood-Harper 06].
Korea principles: Leader mobilization, goal setting, collaboration, equal service accessibility, citizen participation, simplicity [Young 06].
Korean’s lessons learnt: Enabling environment, special committee, clear vision, strategic plan, leadership, institutional arrangements, and efficient funding procedures [Young 06].

The above survey results from principles and lessons learned reveals that steering committee, leaders commitment, citizens focus, service transformation, vision and goals setting, funding, changing people’s mind, strong project team, citizen participation, enabling environment are all critical for successful e-Government implementation.

From the survey we developed an abstract of the flow of our proposed generic e-Government process in Figure 1. There is need to involve all the stakeholders, put in place necessary tools and structures to succeed in the implementation. It is a fact that transforming government into an information society
needs comprehensive collaboration and combined efforts for true realization of its objectives.

4.1.1 Initiation stage
This stage focuses on the government reform process of the systems to be created. An e-Government steering committee in each government organization is formed for the reform purpose and should be linked directly to the top management in the organization. The committee starts off by collecting local and non-local experiences in e-Government implementation. Government agencies are contacted to learn of their experiences in e-Government field. Communication is made and field visits are made to selected government agencies. The major task of these committees is to supervise the implementation of the e-Government plan in their respective organizations.

4.1.2 Preparation stage
It defines a stage plan for e-Government initiative that guides project managers’ implementing e-Government project and also act as a technical and IT security issues for addressing efficient e-Government operations. The plan establishes an implementation roadmap for assigning stages of the e-Government implementation process. It is a comprehensive proposal approach supporting the project leader in tasks such as division of e-Government implementation process into a series of stages that build on each other based on time and content with milestones achieved, and also ensures that process proceeds as required.

4.1.3 Planning stage
To carry out e-Government planning process, an effective participation of the various government agencies is needed. This should be done by getting their feedback through workshops, meetings, visits and field surveys. Furthermore, the feedback of individuals and the private sector should be taken by way of consensus. Country benchmark survey is done to document complete plan covering all aspects and everybody.

4.1.4 Development stage
This stage enhanced e-Government services identified in planning is implemented in a coordinated approach by individual ministries and government agencies in those ministries. The implementation is based on a unified e-Government vision, national priorities and shared standards, and methodologies identified by the e-Government program with the participation of the government agencies. Coordinated implementation is guided by the plan. The infrastructure built defines common agency standards that providing best practice examples and with right to ensure coordination and collaboration between agencies.

4.1.5 Delivery and feedback
This stage analyses the existing public initiatives through collection and general classification and deeper analysis of framework. Committees gather information about existing public initiatives carried out by e-Government agencies in the interoperability domain for a preliminary study for classification of adoption of initiatives. The agreement is reached on the interoperability for exchange of functionality and interpretable data between software entities. The e-Government agencies agree on mandating a full set of standards addressing areas relevant to the interoperability. Enterprise architecture is then built for e-Government. Different approaches describing the elements of enterprise architecture are adopted. Interoperability Framework is defined as a comprehensive, logical structure covering all the aspects of e-Government, from conceptual to physical focusing on selected aspects and maintains contextual perspective.

4.2 The structuring of the stages of the proposed e-Government implementation process and activities
Figure 2 shows steps structure and further details of each stage of the process introduced in Section 4.1. The numbering on the left of each step for each stage is for the proposed e-Government implementation process and they all begin with ‘P’. On the other hand, the numbering on the right if any of each step is a reference of the source from which the step was adopted. Steps adopted from Australia begin with ‘A’. Similarly the steps adopted from Canada, Singapore, Malaysia and Korea begins with ‘C’, ‘S’, ‘M’ and ‘K’ respectively.

Each stage has activities specific to it and do not happen in a linear way but through iteration between different activities,
and some tasks may be carried out concurrently. Stages provide the details and illustrations for the whole framework. Under each stage all the related activities are also given in detail.

4.2.1 Initiation stage activities
P.1.1 Setting up e-Government steering committee: To jump start and roll-out e-Government project, steering Committees need to be formed from each ministry. The committees authorize the e-Government project and oversee the implementation in their respective ministries from the beginning to the end. All committees work as a team.

P.1.2 Setting up e-Government project: Division of the e-Government implementation process into a series of stages that build on each other both in time and as regards content is critical. This will ensure right activity is done at the right time, with the right people. It is a basis to measure milestones being achieved, and it speeds up the implementation process.

4.2.2 Preparation stage activities
P.2.1 Defining e-Government vision statement: Organizational activities
P.2.2 Setting up Stage Plan: Organizational activities

4.2.3 Planning stage activities
Organization
P.3.01 Leadership
P.3.02 Funding

Engineering
P.3.E1 Assessing e-readiness
P.3.E2 Assessing needs & requirements
P.3.E3 Setting national objectives
P.3.E4 Prioritizing objectives
P.3.E5 Establishing of infrastructure
P.3.E6 Identifying potential business models
P.3.E7 Establish boundaries
P.3.E8 Establish structures
P.3.E9 Determine monitoring & evaluation indicators
P.3.E10 Determine access & distribution options
P.3.E11 Improving laws & systems
P.3.E12 Determine governance arrangements

Management
P.3.M1 Setting up e-Government planning committee
P.3.M2 Establishing mechanism for partnership

Development stage
Management
P4.M1 Human capital management
P4.M2 Policy frameworks
P4.M3 Setting up e-Government staff council
P4.M4 Setting up delivery personnel

Design
P4.D1 Assessment of existing infrastructure
P4.D2 Assessment of required infrastructure
P4.D3 System architecture design
P4.D4 Governance structures

Construction
P4.C1 System establishment
P4.C2 Processes and systems
P4.C3 System integration and testing
P4.C4 Acceptance testing

Delivery and feedback stage
P5.1 Delivering of system to government
P5.2 Operation and monitoring
P5.3 Evaluation of results
P5.4 Service transformation and improvement
P5.5 Process improvement

P5.6 Process improvement

Figure 2. The steps of the stages of the proposed e-Government implementation process

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P.2.2 Set up stage plan: The e-Government stage plan is designed as a practical guide for e-Government project managers tasked with implementing e-services. It covers IT security issues, therefore it is to address efficient e-Government operations for implementing electronic services by offering necessary guidelines required

4.2.3 Planning stage activities
Organizational activities
P3.O1 Leadership: Committed leadership is critical for success in e-Government process. Leadership is needed so as to gain acceptance, and to put implementation in place. Leadership is further needed to manage change and sustain support for initiatives and is required in all levels from the political to the administrative.

P3.O2 Funding: No matter how well the plans are put in place, without funding, nothing can take place. Setting up internet infrastructure needs huge amount of money, therefore the government needs to set aside sufficient fund for the implementation of e-Government to be a success.

Engineering activities
P3.E1 Assessing e-readiness: It is critical to assess e-readiness to identify the degree to which a country is prepared to introduce e-Government and to know the actions needed for improvement and areas which need to be developed.

P3.E2 Assessing needs and requirements: Citizens are demanding better services and the government is willing to provide better services. However, the services to be provided can only be arrived at when the requirements are known, hence having complete needs and requirements from both citizen and government is paramount

P3.E3 Setting national objectives: Prior to implementation you must have in place what you want to achieve through
implementation. Therefore it is required to identify objectives to be achieved through customer-centric perspective and vision.

P3.E4 Prioritizing objectives: It is vital that objectives should be prioritized according to their strength and impact. E-Government development is done incrementally, not as bomb blast style. Critical objectives should be considered first.

P3.E5 Establishing of infrastructure: Without infrastructure no service can be delivered. Therefore it is mandatory to have it in place. Therefore the government needs to propose a business and a technical architecture for e-Government system.

P3.E6 Identifying potential business models: E-Government offers opportunity for refining and enhancing existing manual procedures. Therefore the identification of models should be based on the demands for online services by citizens.

P3.E7 Establishing boundaries: The scope of rolling out e-Government must be decided and it should be based on requirements for e-Government, and what the people need most. With no precise boundaries set, no realistic needs of people can be met, no realistic budget can be made and hence no success can be achieved.

P3.E8 Establishing structures: E-government is a new paradigm, to be supported and to work successfully, necessary structures and frameworks must be established and put in place. The structures required will depend on quality of their effectiveness required on provision of e-Government services.

P3.E9 Determining and evaluation indicators: E-government projects should have objectives against which the project is evaluated. Evaluation will justify the process or reveal the weaknesses which need to be rectified.

P3.E10 Determining access and distribution options: Agencies should maximize technology usage and offer choice wherever possible to benefit both citizens and government.

P3.E11 Improving laws and systems: Use of e-Government causes profound evolutionary change of institutional arrangement. Therefore it is mandatory for the government to adopt policy enablers to act as a set of principles on which to base decisions on e-Government as a way of alignment.

P3.E12 Determining governance arrangements: Governance arrangements are needed to ensure the smooth and efficient operation of e-Government as new paradigm, and to give fair voice to all participants.

Management activities

P3.M1 Setting up e-Government planning committee: The committees are responsible for the comprehensive overview of all the project components, how the project intends to produce the outputs and also identify the roles and responsibilities of each team in the structure.

P3.M2 Establishing mechanism for partnership: Efficient and less costly service is the e-Government goal. Therefore collaboration is critical and community-based partnership is necessary participation of stakeholders.

4.2.4 Development stage activities

Management activities

P4.M1 Human capital management: It is an integrated management model including processes and practices designed to ensure that government information technology projects meet business functions needs they are to support, deliver all expected benefits and are completed on time, budget and scope.

P4.M2 Policy frameworks: E-Government transforms activities and creates rules to manage them. It is critical that policy and regulatory framework for e-Government are used to create a pro-business and pro-consumer environment to facilitate development, e-Government industrial growth and online businesses, and protection of consumers’ interest.

P4.M3 Setting up e-Government staff council: The staff council are expected to carry out tasks changes that are made and to develop e-Government as stipulated in the planning. All experts are included to ensure success.

P4.M4 Setting up delivery personnel: A group needs to be set up to take the responsibility of delivering e-services to users and evaluation of e-services.

Design activities

P4.D1 and P4.D2 Assessment of existing and required infrastructure: Establishment of e-readiness status of a country reveals its e-Government maturity level and evaluation of the degree to which it is prepared to introduce e-Government. Areas of weaknesses can then be identified and rectified to set the country ready for e-Government implementation.

P4.D3 System architecture design: It is critical to have secure infrastructure for effective service delivery. ICT forms architecture of variety of technologies and associated products and services. The architecture should be designed for complete users reach and requirements achievement through interoperability of different administration stated in plan.

P4.D4 Governance structures: E-government changes governance roles at all levels, and must be recognized and understood by all. Government’s role as a user of ICT formulates public policy for knowledge economy and must change governance to correspond to use of ICT.

Construction activities

P4.C1 System establishment: The government must establish a government-wide business and technical architecture through which service provision is conducted.

P4.C2 Processes and systems: Processes must be mapped to the system to harmonize service delivery and to satisfy customer needs and preferences. These influences direct policy and program design.

P4.C3 System integration and testing: It is Critical that integral aspects should include interoperability, common infrastructure, consistent and accountable maintenance. Integration must be tested to ensure interoperability.

P4.C4 Acceptance testing: Acceptance Testing is critical because it evaluates a revised government system. It ensures that the system meeting the e-Government requirements.

4.2.5 Delivery and feedback stage activities

P5.1 Delivering of system to government: The developers of the e-Government system hands in the system after the acceptance testing. The system is put into actual operation.

P5.2 Operation and monitoring: E-government implementers providing services to users should collect feedbacks so as to be able to articulate the impact and benefits of the program, in order to justify continued political and public support. Monitoring provides a mechanism for improving the efficiency and effectiveness of implementation government projects.

P5.3 Evaluation of results: evaluation should be realistic and done within the time frames useful for decision-makers with priority to evaluation of demand, benefits and service quality. As services become more complex and expensive, it is important to evaluate demand and incorporate users’ feedback.
P5.4 Service transformation and improvement: New services will require departments to share information, workers to access records and government to collaborate on national and international initiatives. To be effective, every segment of the government needs to change its way of doing daily functions for conformance to services.

P5.5 Process improvement: E-government will require transformation of departmental services and their integration to include other levels of government. Therefore it is critical to improve the processes to realize the integration.

5. Tailoring the proposed generic e-Government development process

In order to build e-Government following the proposed implementation process, the proposed process requires tailoring based on the specific requirements of each country.

P3.T5 Establishing infrastructure: Transiting to e-Government requires national information infrastructure for e-services delivery. Based on e-Government objectives for a country, the type and quality of the infrastructure will differ from country to country. For example a country may need internet access points at convenient places, or provision technology of devices like computers, servers, etc. or authentication by giving user ID and password to all citizens.

P3.T11 Improving laws and systems: E-Government is a new paradigm which cannot work under the existing laws. To provide e-Government services the government must change the relevant rules, regulations, and policies for governing e-Government implementation program for the projects.

P4.M1 Human capital management: E-Government implementation increases the need for ICT related skills in terms of technical and decision making, therefore the scope of the skills required depends on objectives to be achieved and this dictates the skills needed to implement e-Government.

P4.M4 Setting up delivery personnel: The need to set up delivery personnel will be dictated by quality required, security, user knowledge e-service use and complexity of e-Government system. Therefore not all e-Government service provision will need to setting up of delivery personnel.

P3.M2 Establishing mechanism for partnership: Vision and goals of e-Government are specific for each country. In some cases government may need to collaborate with private institutions to complete the architecture, design and construction of the e-Government channel. Otherwise in some cases policy issues may not require agencies to collaborate.

6. Conclusion

First contribution of this paper is the proposed e-Government implementation process, with a staged organization framework meant to oversee and coordinate the implementation process. Second, it provides the stage structure with distinct groupings of activities to guide in role allocation. Third is tailoring discussion on how to map specific requirement and needs onto the generic process.

Future work will be focusing on survey on e-Government implementation process in U.S.A, Japan, Germany, United Kingdom, and India. Also included in future work is requirement elicitation for Kenya e-Government, identification of major e-Government frameworks and subsequent comparison analysis. Analysis results will be used to develop generic e-Government framework, that when tailored can be used by any country planning to implement e-Government.

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