

ENABLING e-GOVERNANCE

INTEGRATED CITIZEN RELATIONSHIP MANAGEMENT FRAMEWORK – THE INDIAN PERSPECTIVE

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INDIA is emerging as a country where a number of experiments of e-Governance are taking place. India gives a unique challenge to “e-Governance” professionals because of several reasons ranging from poverty, awareness, literacy, basic infrastructure, bandwidth issues, multilingual and cultural issues. This paper describes some of the best practices that have emerged during the course of many implementations of e11*. The focus is on how an e-Governance system can be successfully implemented and used. It is written specifically for those in Government and technical specialists who are directly responsible for its design and/or deployment. It also provides guidelines for developing an effective e-Governance plan, and concludes with a discussion of the most significant benefits of implementing such a plan. The topics covered in this paper include: (i) What are the different Components of an e-Governance System?, (ii) How a Citizen Request Management System can be implemented?, (iii) What are the different types of response tools and what is the best way to use them?, (iv) What are the typical technical requirements?

Introduction

e-Government is a way for governments to use the new technologies to provide people with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in our democratic institutions and processes. E-Government provides with some tremendous opportunities to move forward in the 21st century with better quality, cost-effective, government services and a better relationship between citizens and their government.

This paper is based on the research being carried out at SHTR Consulting Group (SCG) with a mission to develop solutions which are *Human Centeric*. The purpose of the research is to develop a framework through which effective and efficient e-Governance can be done. Through this paper authors try to find out the current status of e-Governance in India, typical problem faced by the government and propose an integrated framework for “Citizen Relationship Management System”.

Why e-Government?

Citizens increasingly expect the same level of services from government as they do from other organizations. Businesses transforming their operations for the virtual world are unwilling to go for form-filling and standing in line for government. The distinctions between agencies of government, business and civil society – and the functions they perform – are becoming blurred as power is distributed and the access costs to connectivity fall.

Thus, throughout the world, we see governments, businesses and NGOs working together to adopt e-Governance – from Singapore to South Africa, Andhra Pradesh to Washington State, Chile to Estonia. These are not just experiments in new modes of service delivery. E-Governance inevitably also embraces – and is driven by – new models of policy formulation, new forms of citizenship, new patterns of relationship and power, new options for economic development, and the search for new ways to connect people with the political process.

* A powerful and customizable multilingual e-Governance and CRM solution that includes content management, helpdesk, trouble ticket, routing, lead tracking, campaign, email, webforms and queue management with live chat and knowledge management.

The forces of globalization are gaining momentum with the new technological innovations facilitating the process. With the development of e-Commerce applications around the globe, many countries have transitioned into electronic delivery of services at all levels of government activities. This involves changes to existing systems, procedures and processes; that affect the way in which public and business communities deal with the government. The rapid adoption of e-Governance is facilitated by dynamic technological and telecommunication innovations. In many countries, Information and Communication Technologies (ICTs) are seen as a catalysing tool for e-Governance. It is expected that e-Governance will result in transparency, speedy information dissemination and improved service in public administration. In the era of informed citizens, e-Governance is also seen as a vehicle for cost-effective and efficient way of public service delivery.

These developments pose fundamental questions about how governments can act effectively in this new environment in the interests of their citizens and to promote their well-being. It also raises questions about the role and capacity of government, its relationship with its citizens and with other actors. At an even more fundamental level, the connected world raises questions about the boundaries of community, and therefore of representation and citizenship, that go to the heart of democratic theory.

According to a report from Giga Information Group Inc., the e-Government initiatives are a top priority for governments, which are making efforts to keep up with their Internet enabled constituents, and to do more with fewer taxpayer resources (CIOL, 2002).

Benefits of e-Governance

E-Governance offers a new way forward, helping improve government processes, connect citizens, and build interactions with and within a civil society. What reform has e-Governance in store? According to one school of thought, at root it provides three basic change potentials for good governance for development:

1. **Automation:** Replacing current human-executed processes, which involve accepting, storing, processing, outputting or transmitting information. For example, the automation of existing clerical functions.
2. **Informatization:** Supporting current human-executed information processes. For example, supporting current processes of decision-making, communication, and decision implementation.
3. **Transformation:** Supporting new human-executed information processes. For example, creating new methods of public service delivery.

These change potentials, in turn, can bring – singly or in combination, five main benefits to governance for development:

- ✂ **Governance that is cheaper:** Producing the same outputs at lower total cost.
- ✂ **Governance that does more:** Producing more outputs at the same total cost.
- ✂ **Governance that is quicker:** Producing the same outputs at the same total cost in less time.
- ✂ **Governance that works better:** Producing the same outputs at the same total cost in the same time, but to a higher quality standard.
- ✂ **Governance that is innovative:** Producing new outputs.

e-Governance Initiatives in India

More than 80 percent of the world population lives in developing countries, where socio-economic progress is slow. India is a developing country with a population of 1.2 billion spread over 28 geographically uneven states. Interestingly, transparency and citizen-centric government, which is the expected broad outcome of e-Governance, is not new to India. Perhaps the rock edicts of Ashoka, the emperor of 3rd Century BC provides an excellent sample of the interface – unambiguous and transparent government information available at a public place for citizen convenience. In most of the states in the Indian federation, people speak different languages and dialects; have different literacy levels and distinct socio-cultural attitudes that have affected not only economic progress,

but also legislature. However, over and above, these fragmented population, there is an overlying layer of information technology professionals or 'knowledge workers', who seem to have indirectly pioneered e-Governance initiatives.

The Central and State administrations, customs, ports, the public tax system and education system were the pioneers in e-Governance in India. A number of state governments implemented e-Governance initiatives aimed at cost effectively taking various facilities to citizens. Innovations in the area of land records, taxation, procurement etc were witnessed in the sector with the Internet pervading significant government transactions.

Government of India issued guidelines that 2-3% of every ministry or department plan budget was to be utilized in achieving e-Governance using IT (Raje, 1999). Mrs Raje stated that many state governments have taken initiatives to provide 'one-stop shops' to deliver a host of services to citizens such as domicile certificates, driving licenses, property tax payments, electricity and water bills, etc. In parallel, to achieve mass customization, Government of India decided to set up a National Institute of Smart Government as a tripartite venture between government, business and community (Raje, 1999).

Challenges of e-Governance in India

Sharma (2002) points out that the culture of governance in India has been characterized by secrecy, seniority and corruption. These need to be addressed with a vengeance if the grand vision of e-Governance across India has to become a reality. Moreover, if we carefully analyze all the above initiatives they seem to be more of Government Department, automaton rather than anything to do with the citizens. They might solve a number of problems of the employees of Government but alas! Not even a single solution totally focused on Citizen that has come up in India.

"The data should
move not the citizen"
*CEO of the City of
Vienna Mr. Theimer.*

Indian citizens are forced to move from one department to another, from one table to another in order to get their work done. While initiatives for e-Governance have been emanating from various directions, they are often at cross-purposes and so repetitive and wasteful. The National Task Force has also made several recommendations in this regard. The fundamental strategic challenge faced is **e-Readiness for e-Governance**. This is a multi-fold challenge posing basic questions such as:

- ∞ Is the Data Systems Infrastructure Ready?
- ∞ Is the Legal Infrastructure Ready?
- ∞ Is the Institutional Infrastructure Ready?
- ∞ Is the Human Infrastructure Ready?
- ∞ Is the Technological Infrastructure Ready?
- ∞ Is the Leadership and Strategic Thinking Ready?

There are other multifaceted challenges in implementing any e-Governance solution:

The Human Challenge

Quite often e-Governance initiatives would lead to mandatory organizational and institutional changes affecting both people and methods at all interfaces of the Delivery Chain

- ∞ For this, acceptance of this Change Processes would have to be properly understood, accepted, internalized, adopted and improved to enable full advantages of the technology being adopted in the first part of Smart Governance.
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- ✍ Delegation of the decision-making leading to re-engineering and appropriate sizing of the decision making machinery.
- ✍ Training and acclimatization of the personnel at all levels more so at the lower rung of government management organizations.
- ✍ Loss of vested interests and assumed power as well as authority both amongst the legislature and the executive.

Technology Challenges

There is chance that each government organization is taking independent decisions of acquiring hardware and software. Many time, these hardware and software “do not talk” with each other thereby making it difficult to implement a unified e-Governance policy. Moreover since there is not much coordination between different departments, each department is spending individually for the similar tasks. For example each department shall call different vendors for development of their websites with altogether different prices. This also leads to inconsistency in the functionalities of different sites. Millions of rupees are wasted each year due to this duplication of efforts.

Meeting the Challenge: e11 e-Gov Framework (eeGF)

SCG has developed eeGF that helps Government to effectively answer most of the above mentioned issues. The framework proposes an integrated approach towards knowledge management, information gathering, information dissemination, information dynamics, citizen request management. eeGF helps organizations to effectively serve citizen and their employees. There is no scope for more searching for an answer from a pile of 100s of files or no more saying – “Please come tomorrow”. Using eeGF information retrieval to information change becomes very easy. eeGF enables a true Government – to – Citizen concept. eeGF scenarios focus on providing services to citizens. Currently, these are based on forms. In the future, these forms will be replaced by more sophisticated transactions. eeGF applications present simple forms that citizens can complete in their browsers. The system may already propose some data, when the citizen opens, the form, if the government organization already has that information in its records. So citizens don’t need to enter the data again. The system may also provide help completing the form by offering selected relevant suggestions for particular fields in the form. Specific applications used by the government organization may be linked into the form to help the citizen complete the questions.

Two more ways of using e-Government illustrate the new quality of communication with citizens and the transparency that can be gained with eeGF framework. In addition to submitting applications electronically, citizens with applications pending can check the status of the application anytime to determine where it is in the process. In addition to status tracking, the system sends feedback about missing details or additional information required to deal with the application.

Government can disseminate information using easy to use portals and mini portals. Creating a new portal under eeGF is literally child’s play. One just needs to know Microsoft Word and he can create an information portal. The details of Portal Management System is provided later in this paper. Portals deliver multiple benefits to government agencies in their communication with citizens. The portal uses role-based personalization plus the idea of life events – common situations when citizens use government services like paying taxes or registering for school – to present, in an easy-to-understand framework, and a number of services to citizens who have inquiries and applications. Citizen’s gain structured access to all of the various services from different providers that are relevant for the citizen’s own circumstances.

Core Components of the eeGF

The most important components of the eeGF are:

- ✍ Portal or Content Management System
 - ✍ Customer Relationship Management and its Web Request for defining electronic forms and services
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- ✂ Self Help
- ✂ One to One Chat
- ✂ Knowledge Management

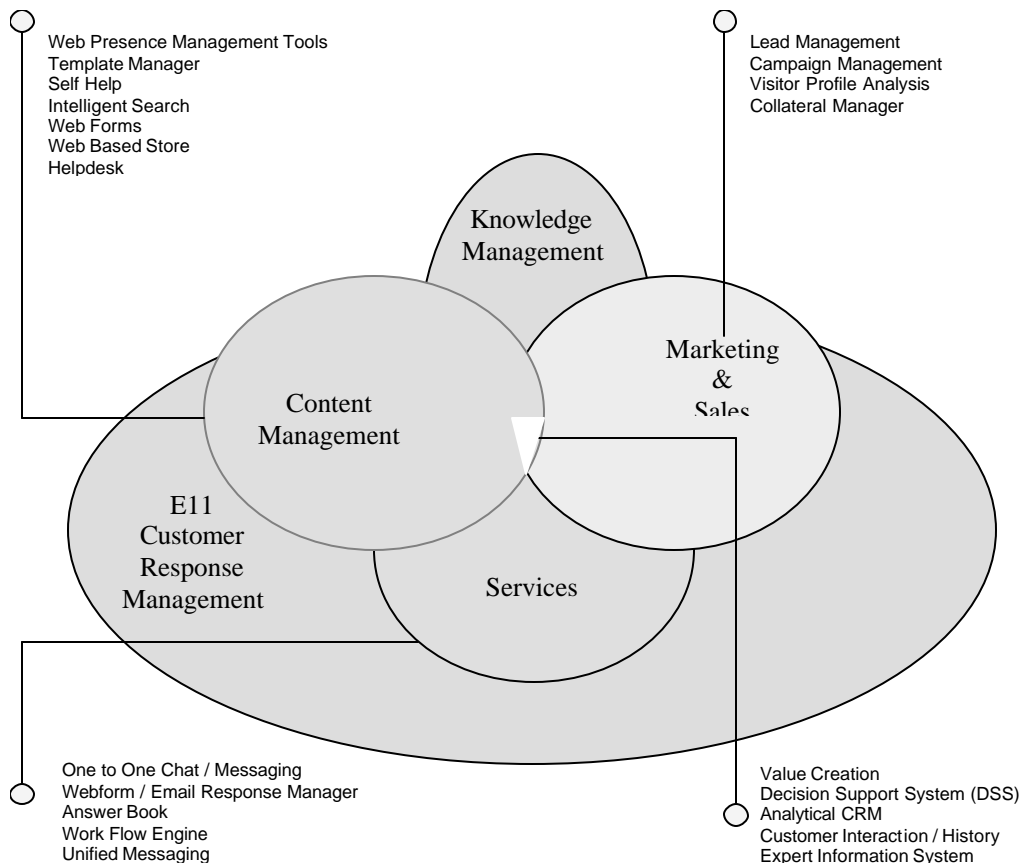


Figure 1: e11 Framework

Source: CRM The e11 Way, Delhi Business Review Vol. 3, 2002

Content Management Engine (Portal Generating Tool)

Citizen portals are constructed on a project basis starting with a standard Content Management Engine. Typically, the layout and design of citizen portals are reworked to reflect the specific requirements of the customer. Content Management Engine offers plethora of services like content engine, template based designs, news posting capabilities, event calendar, chat, picture gallery, discussion boards, multilingual capabilities etc. One just needs to choose between these services and create a new portal or portlets in a matter of few days. A master Content Management Engine has the capability of generating innumerable portals. Portals provide role-based, personalized access to information, services, and functions. The public sector also needs special content management, because city portals can also provide access to a full range of the local and regional offerings, including vendors, service providers, clubs, associations, and other organizations. These numerous offerings are organized for the citizen according to life event.

The life event concept starts from the proposition that people seldom visit a government portal on pure surfing trips. Generally, they visit for a particular reason. The typical reasons for visiting the portal are called "life

events” Examples of life events are building a home, getting married, the birth of a child, or starting school. The portal offers the citizen help with such life events on three levels:

- ✦ The portal contains checklists for each life event, enumerating all of the actions to think about and all there is to know. This is the first level.
- ✦ The second level offers instructions for the critical activities and suggests how to go about them and what not to forget.
- ✦ The third level contains relevant electronic services for certain items in the checklist so that citizens can take the required action right there on-screen.

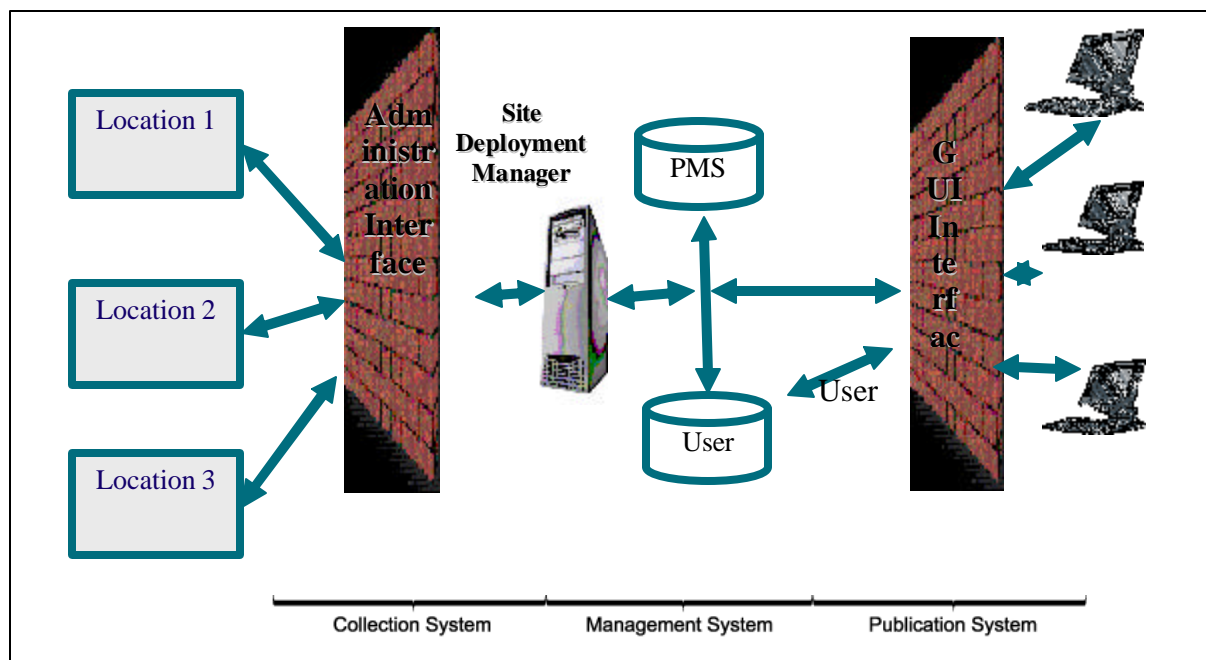


Figure 2: Content Management Engine

Naturally, the life event concept draws in information and services not offered by the government organization itself, but by companies and other organizations. Portals, therefore, provide a very good way for local and regional companies to win new customers. The offerings are focused, citizens do not need to search the entire web to find the solution for their particular problem. This can make a portal an excellent economic stimulant.

Some situations, such as moving from one city to another, require help from more than one government organization. There are generally two possible scenarios. In one, a government organization could offer a service that informs the other involved agencies without further action on the part of the citizen.

e11 Citizen Request Management

In addition to the Content Management Engine, the eeGF also includes functions to build integrated electronic services. The CRM Web Request provides all of the functions you need to create electronic services, including web forms and the associated activities for processing them.

Activities forming part of the government organization's internal processing of the request are defined as actions. Examples of actions include:

- ✦ Completing the web form (Correcting the citizen's data and adding employee-only data)

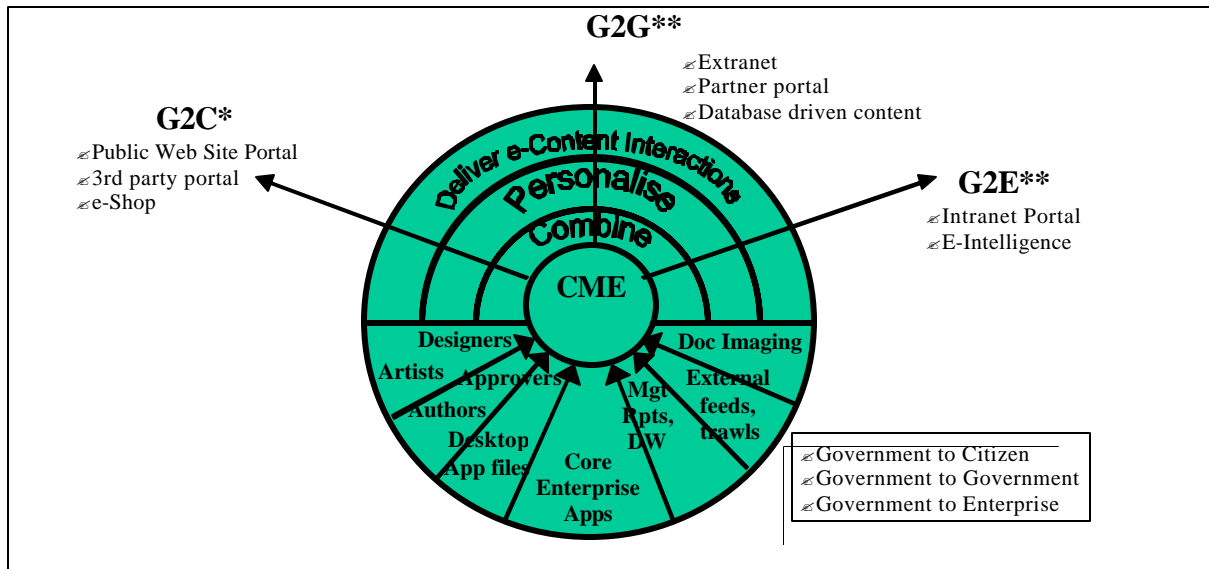


Figure 3: CME Framework

- ∞ Making any formal decisions and sending them to the appropriate office
- ∞ Closing the file

Generally, different employees are responsible for different activities and must perform them in a set order. You define these aspects in customizing where you determine rules for an action, such as predecessor actions, subsequent actions, and responsibilities. In Customizing, you can also stipulate that an action can only be performed once. Actions are a very flexible way of realizing specific requirements in relation to how services are processed.

The main components of Citizen Request Manager are:

Request Assignment and Routing

- ∞ Citizen service requests can be automatically routed based on user configurable rules such as representative skills, last representative contacted, named representative, bulk group etc.
- ∞ Requests can also be manually assigned and reassigned or transferred
- ∞ Work items associated with any request may be assigned or transferred to others, while maintaining the ownership of the request itself
- ∞ Round Robin – Each representative within a department receives an email in turn, one after another
- ∞ Load Balance – The incoming request goes to the representative who has the least number of open request

Request Escalation

- ∞ Automatically escalate service request based on business rules
- ∞ Manually select priority and status of a request and escalate to the next level
- ∞ Time based escalations based on service level agreements or warranty expiration

Response Tracker

- ∞ Citizen “request for service” request creation and updating
- ∞ Get account and contact information for each request, create and edit them

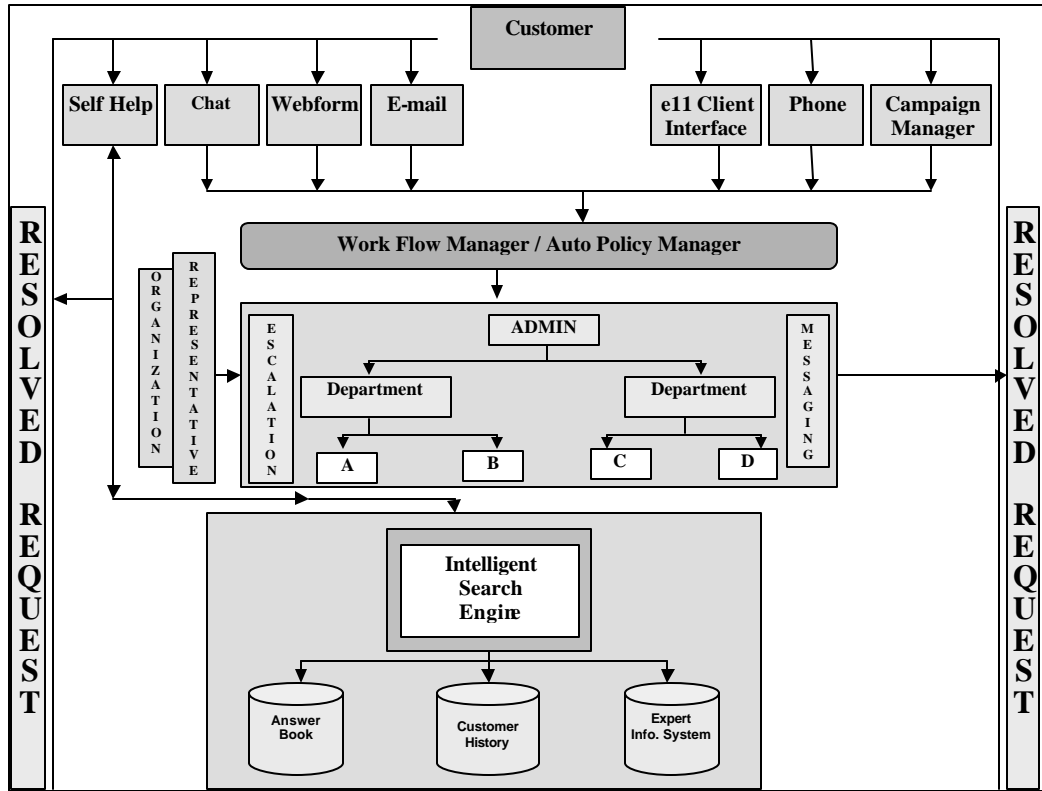


Figure 4: e11 Workflow

- ✘ Create and track activities for each request, across media channel and individual representative
- ✘ View history for all requests open/closed against each contact

Response Reporter

- ✘ Select from a list of pre-configured reports to display the activities against a request, tracked through an account, a contact or a product
- ✘ Patterns of problem being reported
- ✘ Create new reports and categories

Time Management Tools

- ✘ Transfer tasks to other representatives or back to the group in case of scheduling conflicts
- ✘ List assigned activities for each representative either directly by the system based on their skill set/ group or by their manager or those that the representative had previously scheduled for that day
- ✘ Sort through activities based on priority, account, contact, and channel usage
- ✘ Close or revisit tasks
- ✘ Take action based on configurable timers/alarms set for incoming requests (for particular dates or for time durations)
- ✘ Display a reminder for a scheduled appointment

Contact Management

- ⌘ Define new contacts from any screen
- ⌘ Search for contacts based on account, service case etc.
- ⌘ Track citizen profiles based on demographics
- ⌘ Synchronize contacts with MS Outlook. Import contact information from many other contact manager
- ⌘ Maintain a log of all interactions across communications channels (phone, web, fax, email) against a contact for service call requests
- ⌘ Obtain contact activity history from the account or product perspective

Self Help

Specifically, e-Government scenarios give rise to new requirements. Citizens expect their business to be dealt with promptly. Availability of assistance with their inquiries and applications via a choice of media, such as the Internet, telephone, floppy disk, or letter constitute an important organization service. Citizens wish to be able to find and understand the reason for decisions via these diverse communications channels or to determine the current status of their application in the organization's processes. For example, a citizen application system on the Web can offer a service where you complete your tax return by working through the steps of a dialog. The system can immediately feed the steps into the organization's workflow.

Here are some examples of possible Internet self-services:

- ⌘ An integrated view of various account items, such as charges, taxes, advance payments, grants
- ⌘ Retrieving information offerings
- ⌘ Web form services

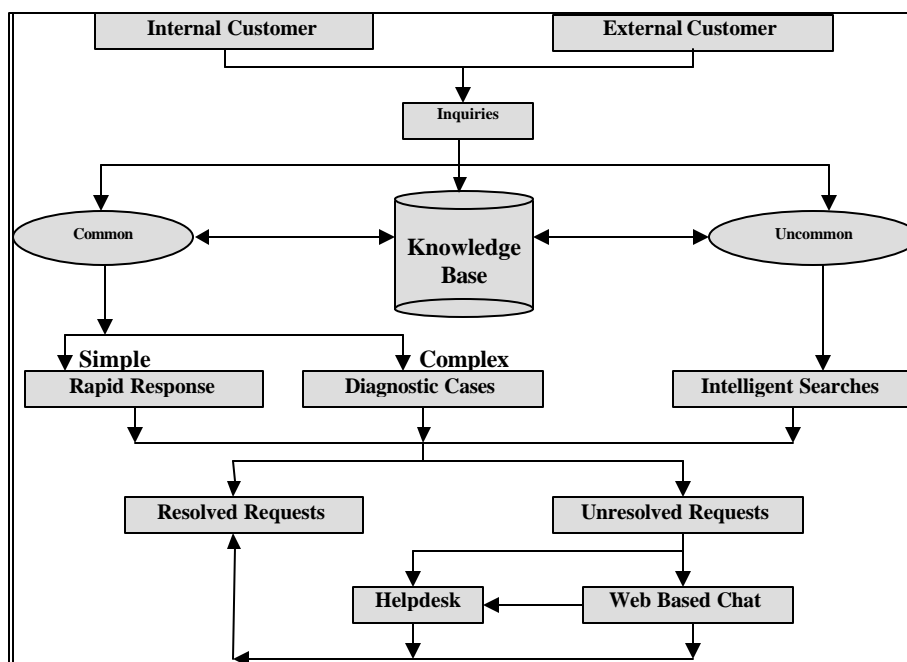


Figure 5: Self Help

Source: CRM The e11 Way, Delhi Business Review Vol. 3, 2002.

- ✍ Registration for events
- ✍ Information area on the law and how it is interpreted
- ✍ Subscription tools
- ✍ Simulation of tax calculations

One to One Chat and Messaging

eeGF one-to-one chat and messaging is citizen service tool for website and organization wide internal communication giving citizens a virtual face-to-face experience. Some of the features are given below:

- ✍ **Text Chat** – Web site visitors simply click a button on website or e-mail messages to instantly join a text chat
- ✍ **Push Pages** – Instantly sends visitors directly to the pages they are looking for
- ✍ **Real Time Traffic Monitoring** – Representatives have the ability to see visitors enter site, track what pages they visit, and proactively offer them help
- ✍ **Pull** – Proactively offer users help with the click of a button
- ✍ **Workflow Manager** – Divide representatives into categories allowing calls to be routed to the most appropriate person. Calls are intelligently routed based on group, status and call volume allowing representative to be used as efficiently as possible
- ✍ **Answer Book** – Saves time and ensure consistency by storing common responses for fast access. It includes HTML elements and formatting in text chats
- ✍ **Messaging** – Representative can either transfer a request or chat with any other representative or manager logged in, even if the representative is logged in from another office or a remote location

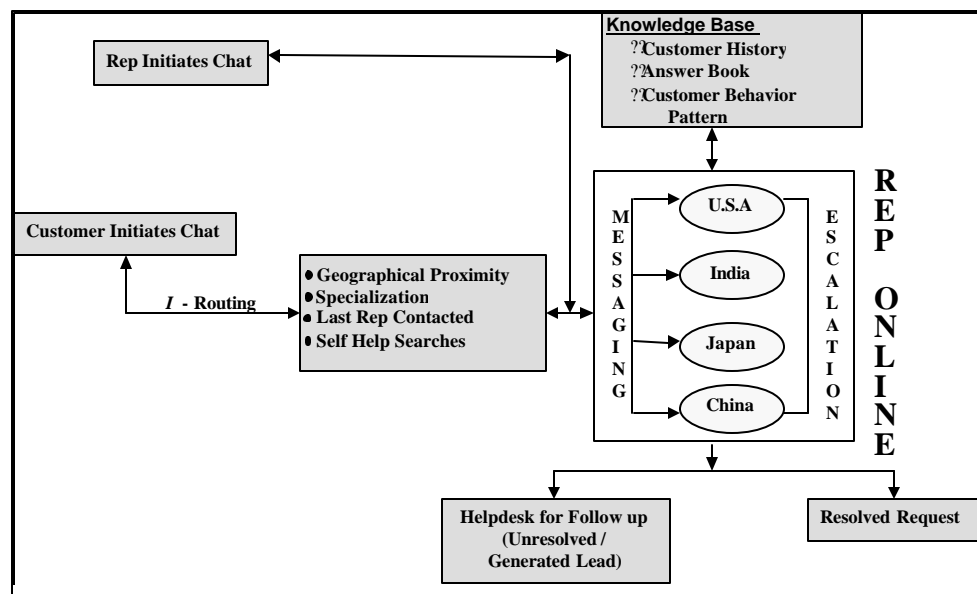


Figure 6: One To One Chat and Messaging

- ⌘ **Chat Transcripts** – Review the transcripts of any chat that takes place on site
- ⌘ **Visitor Profile Analysis** – Stores advance statistics information about both visitors and representatives
- ⌘ **Migrate** – Migrate Chat scripts to CRM helpdesk

Knowledge Management

The built-in knowledge base leverages time previously invested in solving difficult customer problems by storing solutions in an easy-to-retrieve format. Consequently, knowledge gained by individuals can be rapidly disseminated to other representatives within the team. As a result, employee can respond more rapidly to citizens, resolving more problems on the first call. Knowledge base search solutions are prioritized based on frequency of use and can also be categorized by topic, source, and request type. The knowledge base also helps maintain “*institutional knowledge*”, and helps newer employee more productive becoming more quickly.

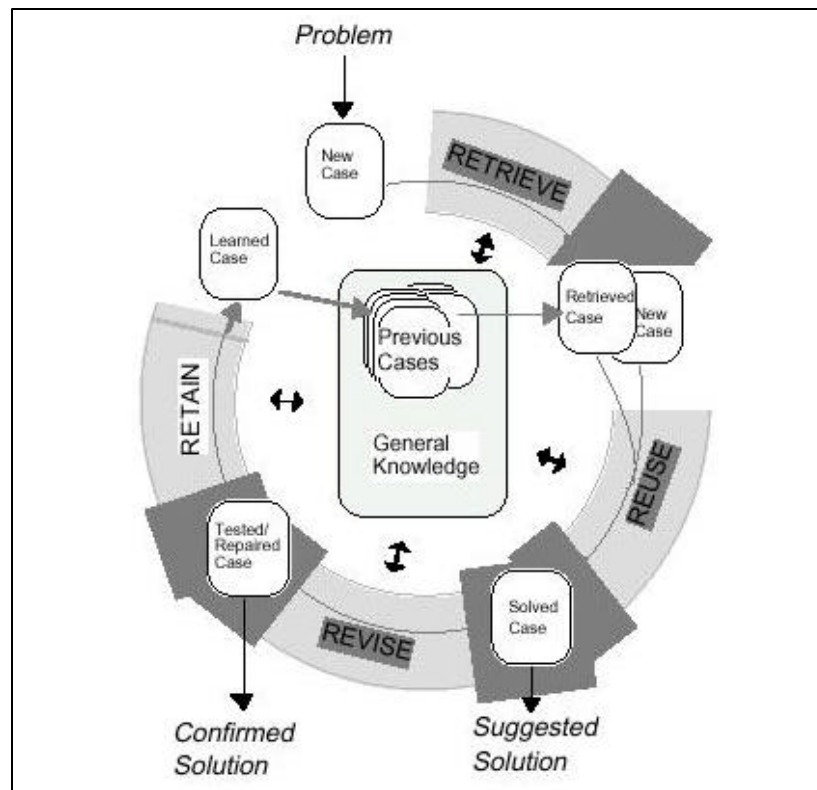


Figure 7: e11 Knowledge Management Framework

Source: Aamodt, E. Plaza (1994), *Case-Based Reasoning*.

Answer Book and Document Management

Up to date documents are critical to the CRM process. Whether it's a forms, sales brochure, product manual, parts diagram, purchase contract or even press releases and white papers – it's not always convenient or affordable for webmasters or agencies to put new documents on your website all the time.

The Document Library helps organizations to lower costs and move the sales and service process faster. Documents can be uploaded in several formats: Text, Word, PowerPoint, Excel and PDF files. Well drafted answers are stored in the document manager. CRM's unique ability to edit and migrate answers gives

representatives power to serve citizens with a flashing speed. It helped some of the clients to reduce resolution time from approximately 20 hours to four minutes.

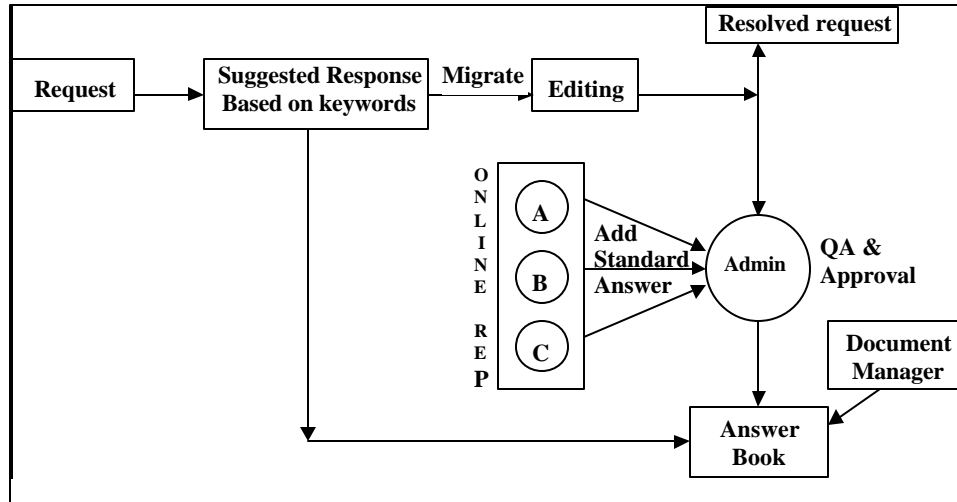


Figure 8: Answer Book and Document Management

Source: *CRM The e11 Way, Delhi Business Review Vol. 3, 2002.*

The Benefits of eeGL

Citizen Service and Care

eeGF moves government agencies up to a new level of customer service and customer care. Citizens, partners, and government employees can access the government organization anytime, anywhere. In addition to increased availability, eeGF also means faster processing with far fewer errors. It is easier for citizens to complete forms, and they are spared the journey to the office and the waiting time once they arrive. eeGF solutions exploit all the possibilities offered by modern customer relationship management. Government organizations' service offerings can be collected together into contact centers, making for efficient processing of all transactions between government agencies and the citizens and organizations they serve. Call centers are also an important element. They provide help and information to the citizens and allow government agencies to log all contacts systematically.

Process Reengineering and Efficiency

eeGF solutions streamline the internal processes of government agencies. Collaborative processes that include the government office, institutions, industry, and citizens slash processing time for everyone involved, reduce the risk of errors, and allow the special input of the various participants to be used in an integrated context. Processes are reviewed from the ground up and simplified. It may be possible to integrate specialized processes into the overall business processes and to automate sub processes. This integration of electronic services with government organizations' specialized applications and back-office systems is the real opportunity for improvements in service and efficiency.

Process automation also offers new vistas for internal data gathering. Such indicators as numbers of occurrences, processing time, errors, and the number of organizational units involved in a case can be harvested directly. You can use feedback questionnaires to collect statements about quality from clients and partners.

Integrating electronic forms into tools and functions is simple so you can easily distribute the different process steps to the electronic workstations of the appropriate employees. There is a choice of tools to do it,

including electronic workflow and electronic records management. These tools not only simplify the flow of work processes, they also make integrated document management possible.

Collaboration and Communities

So far, discussion about eeGF has been strongly focused on the offerings of particular electronic services. The contribution made by portals is often undervalued. A portal lets you collect and integrate all the relevant knowledge available to a government organization and external sources to build communities that really do collaborate. The road to e-Society – the society based on knowledge – is the road of information exchange and of reciprocal knowledge and work provision. Government agencies place important information and the required knowledge at the disposal of their partners and citizens, who use these services themselves. This calls for a degree of intelligence at the data input interface (usually provided by forms, which are being gradually replaced by genuine transactions) and for the provision of further basic, procedural, and background information.

In addition to such concrete, case-by-case collaboration, eeGF solutions also aim to encourage a whole new way of communicating with citizens. For example, city portals can include forums about developments, such as responses to recent political proposals.

Electronic communities also encourage new forms of economic growth. In principle, the Internet is open and borderless. This is basically a plus, but it does have a potential downside in that small and midsize enterprises may be left behind if they cannot afford to build their own presence on the web. A regional or city portal can give smaller organizations a platform to address new market segments and to offer their products and services to local customers.

Conclusion

The eeGF makes it possible for any government organization to work step-by-step toward web-based administration and to build on its current software applications gradually until it has its own comprehensive integrated e-Government solution.

The framework encompasses the entire process: creating an Internet marketplace or portal, presenting electronic services, integrating legacy processes and systems, managing citizen and company accounts, electronic records management, and integrating back-office systems.

For the government organization itself, the eeGF creates a huge potential to improve the quality of service, stimulate trade and industry, and cut costs internally. The work of the employees of the organization is made more interesting because their electronic work station draws together all different informations and services that they need. The people and organizations with whom the government organization deals with will benefit directly from improved knowledge, product, and service offerings.

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