E-Governance web services for web seniors

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Abstract

Now a day's service of any sector can be online this has tremendous in banking sectors, gradually the services of government now become online in every department and provide optimized results .

Web services are added to every application to access data across the web. This has been largely the Result of the many incremental efforts to describe, advertise, discover, and invoke web services. These e-government services gradually covers almost several application domains, including social programs, Healthcare, voting, tax filing, etc.

The primary objective of web services is to provide the interoperability among different software and data applications running on a variety of platforms .

In this paper we mainly focuses on web services provided by government departmental applications especially for senior citizens called web senior.

Key Word: e-government, e-commerce, virtual organization, digital administration, administrative interface, e-governance

Introduction

service-oriented digital government applications focused on efficiently providing customized services to senior citizens. We designed and developed a Web Service Management System (WSMS), called Web Senior, which provides a service-centric framework to deliver government services to senior citizens. The proposed WSMS manages the entire life cycle of third-party web services. These act as proxies for real government services. Due to the specific requirements of our digital government application, we focus on the following key components of Web Senior: service composition, service optimization, and service privacy preservation. These components form the nucleus that achieves seamless cooperation among government agencies to provide prompt and customized services to senior citizens.

Governments worldwide are faced with the challenge of transformation and the need to reinvent government systems in order to deliver efficient and cost effective services, information and knowledge through information and communication technologies.

Development of Information and communication technologies catalyzed and led up to E-government.What is E-government? In this paper,E-government is defined as a way for governments to use the most innovative information and communication technologies, particularly web-based Internet applications, to provide citizens and businesses with more convenient access to government information and services, to improve the quality of the services and to provide greater opportunities to participate in democratic institutions and processes.

E-government presents a tremendous impetus to move forward in the 21st century with higher quality, cost-effective, government services and a better relationship between citizens and government.One of the most important aspects of e-government is how it brings citizens and businesses closer to their governments. This paper outlines eight different potential types or models in an e-government system that is useful to define scope of E-government studies: Government-to-Citizen (G2C);Citizen-to-Government (C2G); Governmentto-Business (G2B); Business-to-Government(B2G); Government-to-Government (G2G);Government-to-Nonprofit (G2N); Nonprofitto-Government (N2G); and Government-to-Employee (G2E). This paper also examines some examples in E-government practicesand presents a generally-applicable framework for analysis of challenges and problems in E-government development.Emerging with E-government, theories and practices of public administration have stepped into a new digital era. This paper proposed that contemporary issues related toE-government in public administration are administrative interface, i.e, peoplecomputer interface in management_ digital administration, i.e., digital process or procedures and system in management, and virtual organization, i.e., government online system, etc.

Web services provide an efficient vehicle for users to access the functionalities available on the web [30]. The development of web services has so far mostly been the result of standardization bodies usually operating on a consensus basis and driven by market considerations. In this context, innovation and long-term deployment issues are not usually of primary concern. Because of the global nature of the web, the standardization process has so far been very fragmented, leading to competing and potentially incompatible web service standards. Governments and commercial organization have meanwhile invested very heavily in web services technologies. These investments have resulted in a fast-growing number of web services being made available. The prevalent business model will, in all likelihood, include a autonomous and competing communities of web service providers vying for consumers attentions. It is, however, important that these investments produce the expected results and soon for the area to really make an impact. One-key impediment has been the lack of any rigorous and systematic methodology for managing the entire life cycle of web services that would include delivering, selecting, optimizing, and composing services.

This needs to take place within a secure, trustworthy, and privacy protecting environment. We call the resulting system a Web Service Management System (WSMS). In summary, a WSMS is a comprehensive framework that provides an integrated view on the management of web services , including automatic service composition, service query optimization, service privacy preservation, service trust, and change management. Service composition is concerned with the automatic selection and integration of individual web services to provide value-added and personalized composite services . Service query and optimization are concerned with the ability to model queries and provide anoptimization framework suited for web services.

Service security and privacy preservation are concerned with ensuring that interactions with web services are conducted in a secure fashion, while sensitive informationcan be preserved as required.

Overview
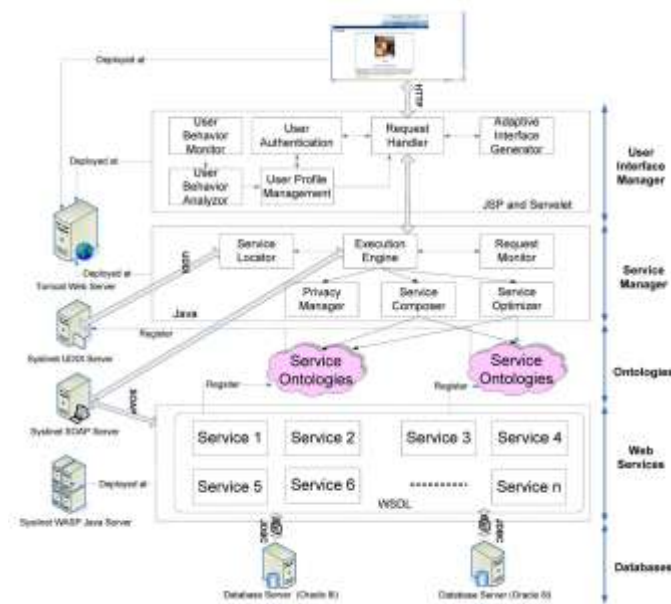
Service centric architecture

In this paper, we describe a WSMS called WebSenior which is a service-oriented digital government system that

aims at providing services to senior citizens. Adopting webservices in DG enables government agencies to: outsource from other DG services, compose existing services to provide value-added services, effectively handle privacy

issues, and provide adaptive web-based user interface WebSenior is a collaborative effort between Virginia Tech

and the Virginia Department for the Aging (VDA). The VDA subcontracts with Area Agencies on Aging (AAAs) to offer services to communities throughout the state. AAAs work with public and private organizations to help seniors and their families find the services and information they need. One of the biggest barriers to providing services

to customers is the lack of integrated information systems.The VDA and its partners offer many and diverse services.

The challenge is how to get these varied systems to cooperate and share information. WebSenior wraps the legacy systems by using web service technologies. It provides an integrated service framework that achieves a seamless cooperation among government agencies to provide prompt and customized services to senior citizens.

We summarize the key components of WebSenior, which constitute the major contributions of this paper as follows:

.Service composition: This component performs three tasks: checking composability, checking soundness, and automatically composing services. The first issue when defining a composite service is whether its component services are composable. We present a set of composability rules to ensure the feasibility of the composed services. Another important issue is whether a composite service provides an added value.We present the concept of composition templates,based on which the soundness of a composite service can be evaluated. Finally, we propose a matchmaking algorithm for automatic composition of webservices.. Service Optimization: This component performs a"user-centric" optimization that selects the composition plan with the best quality based on users'preferences. First, we define a score function to evaluate a composition plan. In the score function, a weighting mechanism is adopted to express users' preferences over different quality parameters. A set of aggregation functions is presented to compute the quality of a composition plan that consists of multiple operations. Second, we present two optimization approaches to find the best plan: exhaustive search and greedy search.

Existing work

Present System is manually providing services to citizens and Senior citizens. They have to go service center to know some particular information. As part of an effort to improve government-citizen interactions, government agencies are now providing a wide spectrum of online services that implement the long awaited DG. These e-government services usually span several application domains, including social programs, healthcare, voting, tax filing, etc. DARPA Agent Markup Language-Service (DAML-S) is a major effort aimed at enabling the semantic description of web services (www.daml.org/services). However, DAML-S gives little support for the business process semantics of web services. WSMO uses the Web Service Modeling Framework as a starting point and refines it by developing a formal ontology and language. SWORD (a developer toolkit for web service composition) is a technique that uses a rule-based expert system to automatically determine whether a desired composite service can be constructed using existing services.

Disadvantages:

➢ Data integration problem, involves combining data residing in different sources and providing users with a unified view of these data.

➢ One of the biggest barriers to providing services to customers is the lack of integrated information systems.

➢ DAML-S and WSMO provides little or no support for specifying interoperation relationships.

➢ SWORD doesn't focus on relationships between web services or customized composite web service generation based on user profiles.

PROPOSED Models

The proposed WSMS manages the entire life cycle of third-party web services. These act as proxies for real government services. Due to the specific requirements of our digital government application,we focus on the following key components of WebSenior: service composition, service optimization, and service privacy preservation. These components form the nucleus that achieves seamless cooperation among government agenciesto provide prompt and customized services to senior citizens

Advantages:

➢ It provides an integrated service framework that achieves a seamless cooperation among government agencies to provide prompt and customized services to senior citizens.

➢ The specific needs of senior citizens by providing customized access to the services with their desired quality.

➢ Successful deployment of DG applications provides an efficient framework that accommodates autonomy, bridges heterogeneity, and integrates data and applications in the most useful and homogeneous way.

a.1. User Interaction Management:

The functionality of the user interaction tier is to authenticate users, present service information, and record and analyze user's behavior. After identifying the user, the user interface will change adaptively according to user's static profile and his or her current operation behaviors. There are six components in this level: Adaptive User Interface Generator, User Authentication, User Behavior Monitor, User Behavior Analyzer, Request Handler, and User Profile Management.

a.2. User Behavior Analyzer(In Graph):

These are component residents on the client side. Its main functionality is to track the user's operations on the computer. The component records the data, and aggregates and delivers it to the User Behavior Analyzer. After gathering the data from the User Behavior Monitor, User Behavior Analyzer analyzes the data and generates conclusions based on the behavior evaluation metrics.

a.3. Service composer:

Different senior citizens may make different service requests based on their particular situations. The service composition component enables customized delivery of services, which is particularly suitable for e-government applications. Service composer composes several web services to fulfill users' requests with value-added services. It needs to contact the service locator to get the required service descriptions. It also needs to contact the ontology manager to get the ontology information.

a.4. Service optimizer:

Service optimizer aims to provide the best quality of service through execution of a set of web services. It first selects web services (single services and composite services) to generate an execution plan. The selection is based on a request quality of service model to optimize the execution plan. The service optimizer then accepts the request of the user.

Some are the fallowing services provided by the e-gov. applications
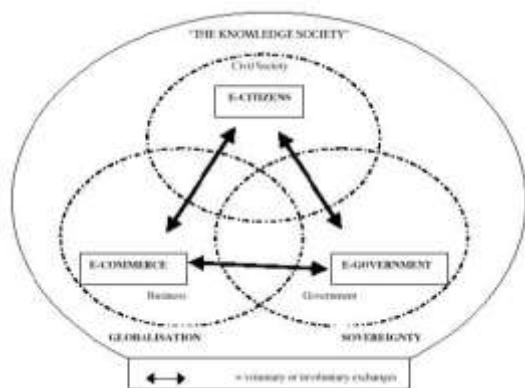
Services for citizen Service

1. View movies-The citizen will see the available movies.
2. Book movies-The citizen will book the movies.
3. View trains- The citizen will see the available trains.
4. Book trains- The citizen will book the available movies.
5. Feedback- The citizen will send the feedback to admin.

Services for senior citizens Service

1. View List Of meals—this service provides list of meals to senior citizens
2. Order the Meals—this service provides order the meals to admin
3. Feed Back —this service is used to send the feed back to admin regarding the meals
4. View Medicines-this service provide the information about medicines
5. Order- Medicine-this service is used to send the medicine orders to admin

A Triangle Relationship Model among Government, Business and Citizens

The following diagram illustrates the relationship among E-Government, EBusiness, and E-Citizens in the context of the emergence of the so called "knowledge society", globalization, and sovereignty:Given the scale, scope, multi-portfolio nature, and transformational potential of egovernment, it has been advocated that it should be treated as a holistic system adjunct to the area of e-commerce in the E-society.

Conclusion

We provide the survey details of weservices provided by e-government applications . we describe the service oriented framework called WebSenior,to provide services to senior citizens. We implemented actual social services using web services it manages the life cycle of government social services.

We have shown a set of key service components in WebSenior, consisting of service composition, optimization, and privacy preservation. In particular, WebSenior provides the dynamic services, select service providers based on their quality attributes, and enforce the privacy of citizens when requesting and receiving government services.

Finally we conclude that framework is suitable for government and non profitable ngo's sites for providing service to the citizens.

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