A Study on the Medical tourism customized service platform for clinic

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Abstract

Through diversification of 4th industries and transportation and globalization, tourism was developed for medical purposes, not limited to touring tourist attractions. The trend of medical tourism in Korea is shifting from large and medium-sized hospitals to professional medical services in one area of small hospitals rather than professional medical services. However, small hospitals lack medical coordinators and interpretation services, and tourists who visit Korea for treatment lack information on small hospitals. Therefore, a platform is needed to match small hospitals with medical tourists. In this study, using Platform as a Service (Paas) in cloud computing, clinic administrators can access the app to introduce information about their hospitals with simple manipulations. Tourists also want to propose a customized platform to select the right area for them to check information about small-scale hospitals and choose the treatment and tourist attractions they wants. In this study, using Platform as a Service (Paas) in cloud computing, clinic administrators can access the app to introduce information about their hospitals with simple manipulations.

Keywords: Medical tour, Service matching, Guide, Platform, Clinic

1. INTRODUCTION

Medical tourism is recognized as a high value-added industry because it costs more to stay at tourist destinations than regular tourism. Medical tourism also emphasizes the combination of medical and tourism in the form of tourism, which combines medical services with tourism activities such as recreation, leisure and cultural activities. In addition, according to data from the Korea Health Industry Promotion Agency, there are about 315 hospitals serving medical tourism in Korea in 2015[1], indicating high demand for circulatory physiology, dermatology, plastic surgery, orthopedics and neurosurgery. Hospitals dealing with large diseases such as circulatory physiology and neurosurgery are university hospitals and large-scale hospitals, so medical coordinators and medical interpretation services are developed and residence [2]. However, dermatology, plastic surgery and orthopedics can be treated not only at university hospitals and large-scale hospitals, but also at small-scale hospitals, which are less expensive for tourists and do not limit tourist attractions and accommodation to specific area [3]. However, Korea has excellent medical equipment and infrastructure, but it is not consistent with policy support and legislation, making it difficult for consumers to choose hospitals for medical tourism [4]. It is also necessary to provide customized information to hospitals that many consumers want to match each other's services. In particular, it is aimed at consumers with simple procedures and beauty purposes, focusing on small-scale hospitals. In this study, we propose a customized service platform that matches users who visit hospitals and medical tourism.

2. RESEARCH METHODS

2.1 Medical tour service process

Medical tour service process divide before entry, after entry, after going out country. Before entering the country, select a small-scale hospital by checking which city fits well with consumers, and establish a consultation stage and medical plan for the desired small-scale hospital. After entering the country, small-scale hospitals provide interpretation and pick-up services so that consumers can receive medical treatment smoothly, and customized tours will be conducted when the treatment is completed. After leaving the country, consult the hospital online through follow-up management and establish a basis for communication between consumers and hospitals.

2.2 Cloud Computing

The types of cloud services are divided into Infrastructure as a Service (IaaS), Software as a Service (SaaS), and Platform as a Service (PaaS) [5]. It refers to a cloud service platform that serves developed applications on mobile devices in the form of PaaS. Proposals and systems for integrating medical information and establishing patient-centered medical information data in cloud computing environments continue to be developed. If necessary, only licensed information is provided in the Open Application Program Interface (API) format, and the entire administrator collects the Open APIs provided by the government and the enterprise and stores them in the Context Broker to provide services, and users use the necessary medical information in the Open API format.

3. MEDICAL TOURISM CUSTOMIZED SERVICE PLATFORM

3.1 Medical tourism matching platform

The medical tourism customized service platform designed in this study provides a single platform for users who visit medical tourism and a small hospital that provides medical services, suggesting a platform for customized services to users for medical tourism. Figure 1 is lists the flow of work between medical users and small-scale hospitals for medical tourism.
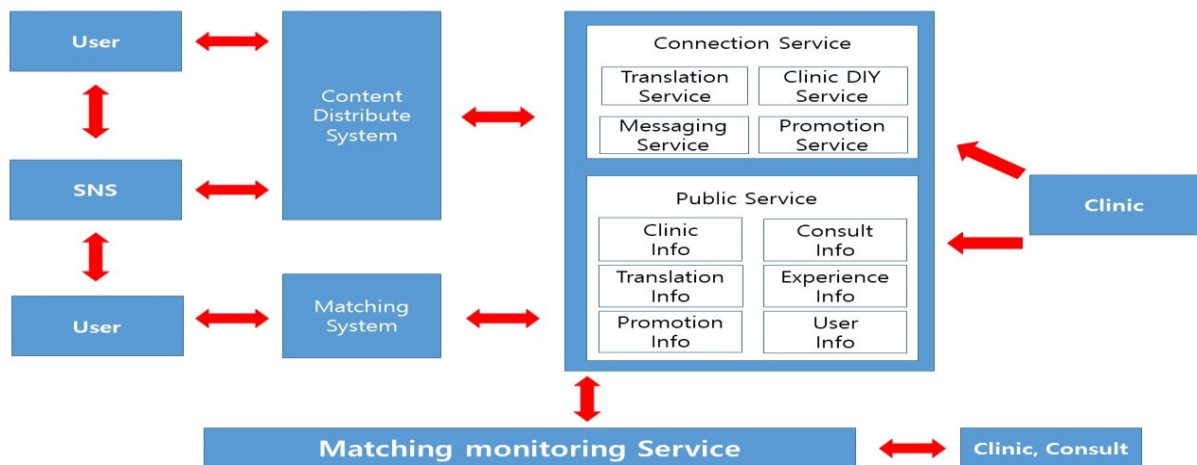

Figure 1. Medical Matching Platform System

3.2 Medical tour interface

A service used by domestic and foreign travelers, designed to enable content retrieval and storage by acquiring complex travel information and creating standardized medical resources and experiences to promote

treatment for small hospitals, enabling users to check their information and plan ahead. In User Service, in Personal Information (P.I), enter the user's personal information. In addition, Interest Clinic selects the treatment that users want, and Translation and Consult Records enter the user preferred language and medical records. User write on the hospital that was treated in Comment. Promotion receives hospital discount information from Clinic Service and is checked by the user. Figure 2 introduce all user service.
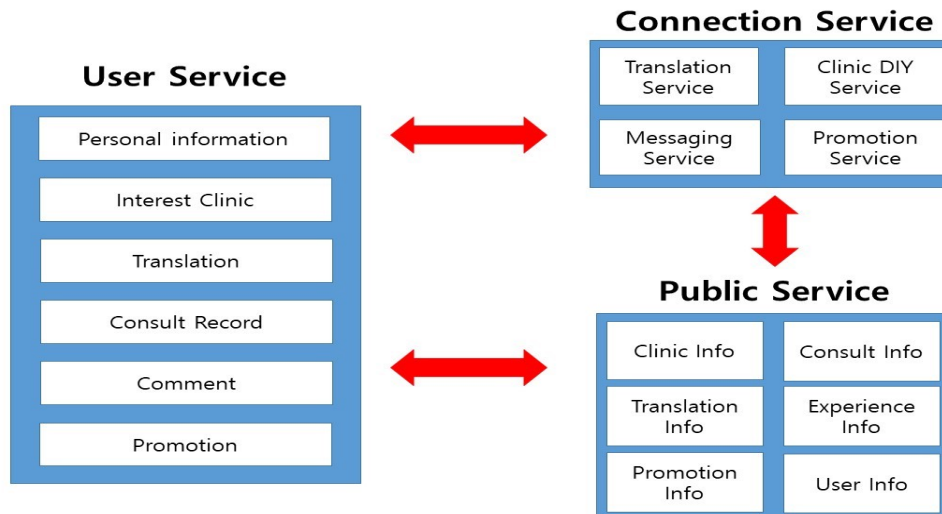

Figure 2. User interface

A service used by small-scale hospitals, providing information and location for users to view medical tourism by setting doctor's information, medical device and equipment, providing hospital strengths and characteristics to help users choose hospitals, and posting promotions and reviews by all users. Figure 3 introduce all clinic service.
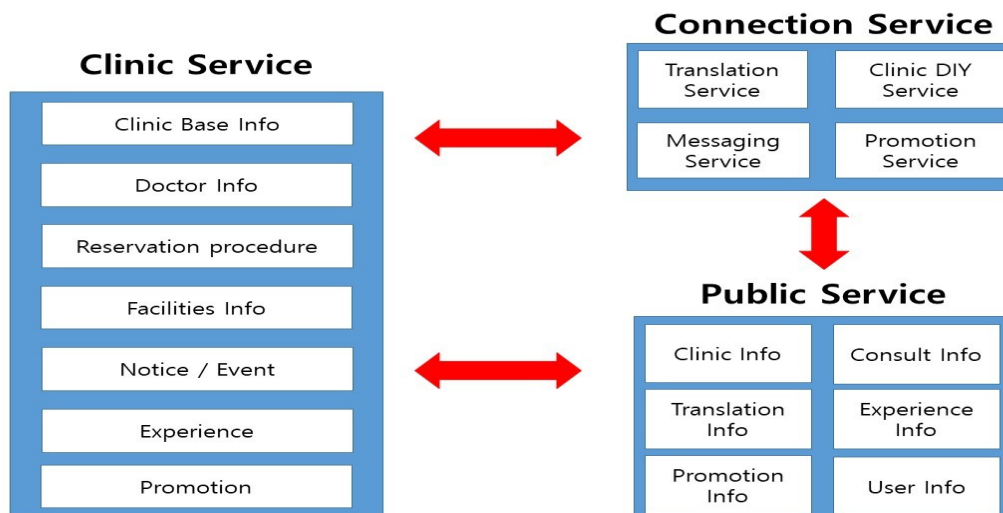

Figure 3. Cline interface

Figure 4 is a flowchart of a customized service platform for medical tourism users. First of all, user registers information such as Personal information, Interest Clinic, Translation in the database. Second user choose treat that they want. Furthermore, small-scale hospital and clinic registries information such as Clinic Base Info, Doctor Info., Reservation procedure, Facilities Info, Notice / Event and also small-scale hospital and clinic

registries Promotion and tour spot for user. Next, User request a desired small-scale hospital and clinic search and Content Distribute system request for small-scale hospital and clinic by Clinic database. Clinic database provide small-scale hospital and clinic data which user want that meets search conditions. Finally, Content Distribute System provide desired small-scale hospital and clinic data to user.
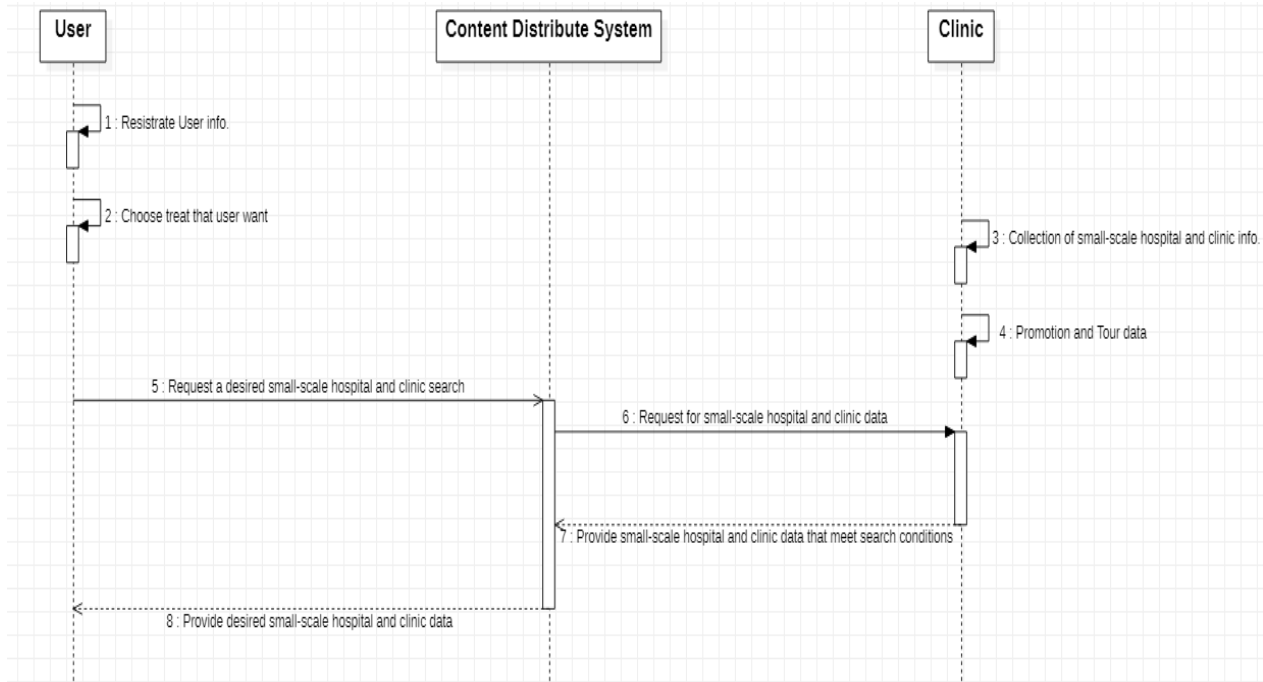

Figure 4. Medical tourism customized service platform flowchart

3.3 Comparative analysis with other systems

Table 1 is a comparison of this proposed system with Korea Medical, Gangnam Sister and application scale, hospital management type, service provision, and system scalability items.

Table 1. Comparative analysis with other systems

Comparison category	Korea Medical	Gangnam Sister	This Proposed system
Scale of application	All treatments at large and medium-sized hospitals	Focus on beauty treatments at medium-sized and clinic	All treatments at clinic
Hospital Management Form	Types of care, regional and hospital information service forms	Beauty care, local, hospital referral information, and promotional service forms	Hospital introduction information, all care, regional, promotional services and interpretation services are provided.
Service Form	Hospital introduction, treatment, and regional delivery of large-scale hospital-focused services	Medium-sized and small-sized plastic surgery-oriented beauty care services are provided.	Small hospital-scale hospital procedures can be viewed as services, and promotions and interpretation services are provided
System Scalability	It is difficult to expand the information is too large because developed by the Korea Tourism Organization.	As it is intended for beauty treatment, it is easy to expand but has clear limitations	Ease of scalability as it is for all treatment purposes available in small-scale hospitals

4. CONCLUSION

Medical tourism is recognized as a high value-added industry because it costs more to stay at tourist destinations than regular tourism [6]. Medical tourism also emphasizes the combination of medical and tourism in the form of tourism, which combines medical services with tourism activities such as recreation, leisure and cultural activities.

In this study, that identified the difficulties of medical tourism in Korea and developed it as a system and also analyzing medical tourism services and provide customized services for small-scale hospitals, a guide line is provided to design and implement each interface separately into consumer and hospital tasks to identify procedures and beauty information in a single platform. As such, the medical tourism platform suggests that consumers can find customized hospitals that suit them and develop platforms that can easily obtain hospital information.

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