

Kinmen e-Bus Information System

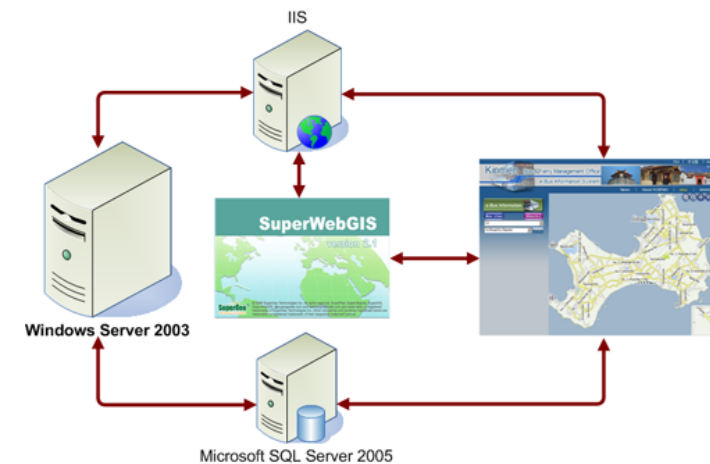
Scenario

Development of sight-seeing industry is the key policy for Kinmen government. With the establishment of national park and the Mini-Three Links, more and more tourists are attracted and come visiting Kinmen. Therefore, how to develop the suitable public transportation system combining Kinmen's local features is a necessary issue. Leisure and travel grow to be the focus for people's life nowadays; Kinmen county owns various cultural skills, local characters as well as the natural village scenery. If the public transportation system is well planned with travel, it will benefit the development of the tourism industry. For the reason, Bus and Ferry Management Office of Kinmen County is scheduled to create a website integrated with tourism and dynamic bus information to provide the public with a convenient and easy-to-use transportation system. As a result, the energy usage efficiency of transportation system can be effectively enhanced, Kinmen's tourism industry will be vigorously developed and the public can take the bus even conveniently.

Solutions

Kinmen e-Bus Information System is a query system using Web-GIS as the basic architecture. Kinmen e-Bus Information System adopts SuperWebGIS as the map server platform to publish route data, scenic spot data, and electronic maps of Kinmen area provided by Institute of Transportation, Ministry of Transportation, over the Internet. The client end can query the bus routes and the scenic spots through the general browsers without the need of any extra plug-ins.

In respect of database, Kinmen e-Bus Information System adopts Microsoft SQL Server 2005 as the tool to save and maintain the spatial information.



Solutions

- Kinmen e-Bus Information System adopts SuperWebGIS as the map server to publish the data and maps saved in the geodatabase over the Internet for the general public to query in a convenient way.

Results

Kinmen e-Bus Information System is a Web-GIS integrated real-time bus information and tourism information. The basic GIS tools are provided in the system. More, the electronic maps of Kinmen area provided by Institute of Transportation, Ministry of Transportation, are adopted in the system as the main extent for query. As a result, before the public is to take the public transportation system, they can easily obtain the required information.

In respect of functions, Kinmen e-Bus Information System can be divided into two major functions: e-Bus Information Query and Tourism Guide and Transfer Service. The e-Bus Information Query allows the public to query the bus' estimated arrival time to achieve the goals of saving time and convenience. The function provides three ways to query e- bus information: (1) query by the route name; (2) set one scenic spot as the condition to find out all of the bus routes that pass; (3) set the administration area as the condition to find out all of the bus routes that pass. When users find the required route in the way mentioned above, the result routes will be displayed on the electronic map, and users can query when the bus will arrive and departure by clicking the needed stop on the map.

The information of the public transportation and the scenic spots in Kinmen county is integrated into the tourism guide and the transfer service, which allows the tourists to refer with when scheduling the travel route. Two ways are provided for query with the tourism guide and transfer service: Query with Keywords and Query with Scenic Spots.

1. **Query with Keywords** : The public can search with the various keywords, like landmarks, intersections or bus stops, to get the position information, and then set up the start, end points or the middle point in the popup windows to arrange the travel route in a convenient way.
2. **Query with Scenic Spots** : The system collects many types of tourism information in Kinmen area. Users can choose one type of tourism information and all of the landmarks in that type will be displayed on the map. Users can click the landmark on the map, and a window that displays the text description and pictures of the landmark will show up. Furthermore, users can set the landmark as the start point, end point or middle point of the route through the buttons on the window.

Kinmen e-Bus Information System not only completely integrates Kinmen bus information and scenic spot information but also provides diverse and real-time information. Users and tourism are able to query bus routes and plan the best tourist routes in a convenient way.



Users can not only get the position information but also setup the start, end points or the middle point in the popup windows to arrange the travel route.

Results

- Kinmen e-Bus Information System is an integrated platform providing real-time bus information and tourism information based on Web-GIS technology.
- With the establishment of TKinmen e-Bus Information System, users and tourists are able to query bus routes and plan the best travel routes in a convenient way.

Software Used

- SuperWebGIS
- Windows Server 2003
- Microsoft SQL Server 2005