

E-COMMERCE TICKETING TOOL FOR MULTIFUNCTIONAL ENCLOSURES

Low cost solutions for tradicional venues best advantage

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Keywords: e-Commerce & e-business: B2B & B2C, CRM, Internet Services & Applications, Ticketing.

Abstract: The explosion of Internet has made consumers much more familiar with new ways to shop. Sellers can distribute their products and accept orders from buyers 24 hours a day. The field of e-Ticketing constitutes one of the mightier lines of business in e-commerce. Traditional enclosures, like bullrings, have a vital importance in the circuits of leisure of many places of Europe, but they count on the disadvantage of the obsolescence in its systems and procedures. This paper describes the initiative carried out in Spain, which allows the companies that manage traditional enclosures to sell tickets through the Internet without making big payments in order to reach new channels and to improve the operation and yield of the present ones.

1 INTRODUCTION

Civilizations traditionally have constructed enclosures destined for leisure. The advantage and yield of this kind of constructions are often far from being optimal for structural or technical reasons, although the demand of the use of traditional enclosures, either for traditional celebrations or for new ways of leisure, is increasing. In Spain, due to the ancestral bullfighting tradition, all chief towns and many country villages have, at least, a bullring properly prepared, having a minimum of 7,000 seats and surpassing 24,000 in Madrid. Bullring property is, generally, public. Administration establishes the operation way, almost always in the hands of particular promoters in concession regime. Due to the extensive influence of Spanish culture in Latin America, bullfighting tradition, and for that reason, bullrings are also frequent in other countries like Venezuela, Colombia, Ecuador or Mexico. Portugal and southern France counts, also, with a set of bullrings, in some cases put on Roman circuses.

Outside bullfighting season, which depends on the importance of the city and the local fiesta, the availability of the facilities are total. Event types

range from concerts, fairs, promotional events, to sport events. Due to the lack of big tennis venues, Spanish tennis dignitaries have chosen bullrings to hold Davis Cup semi finals in 2003 and 2004.

Having this opportunity of business in account, we started up an initiative in 2003 to facilitate new technologies to this kind of venues. In order to offer a total cover of ticketing needs, we have designed a B2B-B2C tool and a set of services associated to it that enables the promoters to negotiate seat sales on a remote and flexible way taking advantage of Internet, mobility and CRM.

The reminder of this paper is arranged as follows. Section 2 sets up ticketing, and in particular e-ticketing, state-of-the-art. Section 3 presents a functional description of the tool. Section 4 sets up tool architecture. Section 5 lists all bullrings that have contracted the service during 2004 and, finally, section 6 summarizes concluding remarks and future lines of development and investigation.

2 E-TICKETING

E-commerce systems have been changing the tradition of business activities through the Internet. E-Ticketing is one of the most lucrative business activities in this field. Particularly significant is Airlines e-ticketing. Starting from the early-1980s, the computer reservation system has played a very important role in the provision of airline services. The industry has been effectively encouraged by both the demand-side and supply side factors within a very short time. Web reservations, on-line ticketing, electronic tickets and kiosks have appeared soon [Shon 2003]. Throughout 1999, 2000 and 2001, the booming e-commerce business generated lots of investment in setting up virtual ticketing websites around the world. Airlines recognize that the key to survival is cutting costs, and they are looking to technology to do just that [Riebeek2003].

Apart from transportation initiatives, leisure related fields are one of the most productive implementations in e-ticketing. Cinemas, theatres, sports and music are extraordinarily developed fields in e-CRM. It enables companies of all sizes and across all industries to offer one-to-one relationships to customers [Pan 2003]. At this moment, all great sport spectacles count on an e-ticketing system (www.nba.com, fifaworldcup.yahoo.com, etc).

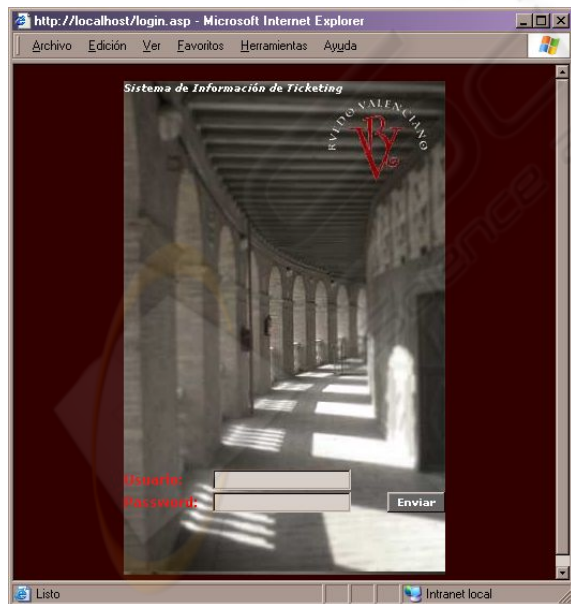


Figure 1: Homepage local Information System

The importance of this kind of applications explains the existence of studies applying Software Engineering principles in e-Ticketing. In particular

[Li 2001] discusses the use of the Unified Modelling Language (UML) to analyze and design e-commerce systems.

This paper describes an initiative that enables traditional enclosures (bullrings) promoters to hire an e-ticketing tool to sell tickets through the Internet without making big payments.

3 E-COMMERCE SOLUTION

The most important for spectacles celebrated in traditional enclosures are tickets reservation and expedition. This expedition can be made using the conventional way, through a ticket wholesaler or from promoter web page, which is offered as an additional feature. Operations are as follows:

Bullring offices. Clerks, using the Internet http tool that is showed in figure 1, select the seats and prints it though a common laser or a thermic printer. Payments can be cash or credit card.

Ticket wholesaler. Wholesalers (www.ticketstoros.com, www.mundotoro.com, www.arrimate.net ...) can use either a request to a web-service (under development) or a conventional XML/HTML requests, to look up the availability of seats, and, once chosen the desired seat or seats, depending on the event, either print the tickets using their means, or, offer a code to the client. This code, in combination with Personal Identity Card, is the key for physical tickets needed for area entrance. Wholesalers offer their services via phone, Internet, and given the diffusion of the devices like PDA or Mobile Phones, through mobile devices (fulfilling [Met 2003] dictations). Wholesalers are responsible of making collections and payments.

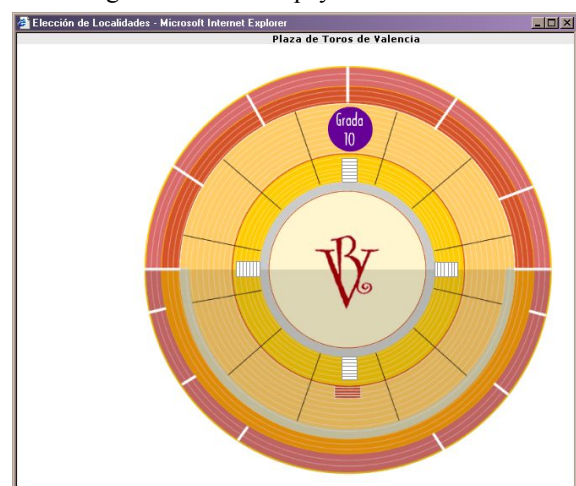


Figure 2: Flash visual improvement

Promoter Web. Web uses the same technology showed in the previous option. Once chosen the localities by the user, they are paid using a safe payment gateway provided by Banesto [Banesto 2004]. Once successfully concluded the payment process, web facilitates an identifier to the user which is the key for printed tickets.

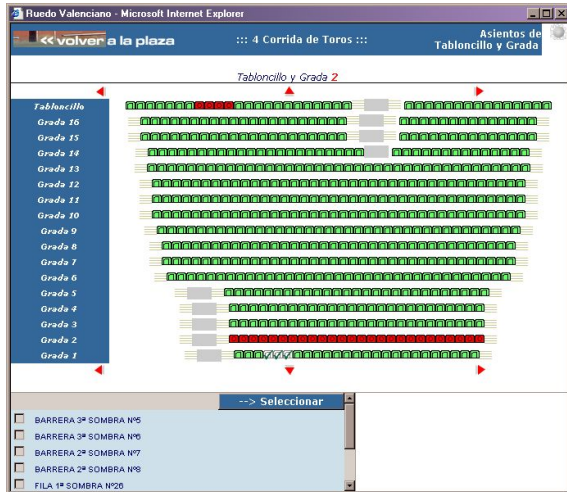


Figure 3: Ticket tool selection

Events, from ticketing point of view, can be divided into numbered and not numbered. Numbered events are those in which the user must occupy a concrete seat. To guarantee the suitability of the location, application must codify each seat topology. This circumstance makes necessary the use of a “seat placer” that handles the exact codification of the different seats, in order to reduce start time of new customers.

In order to offer a friendly interface to the

reservation and purchase process, figure 2 shows a visual improvement. One possibility of future improvement is the implantation of visual improvements that allow, not only the survey control of the seats and of their zones, but an experiential purchase through devices as guided visits, subjective views from the seats and 3D animations. Taking like reference mentioned figure 2, the user receives the necessary information that allows him/her to decide what zone of the enclosure wants to occupy based on its price, proximity to the spectacle or type of seat. Seats election is made by means of a simple set of screens that reproduce layout of the enclosure. Trough an intuitive set of icons, user can choose available seats. Figure 3 shows the selection process. Countable operations and exhaustive collections inspection are also available. These features allow identifying possible irregularities either in the interaction with wholesalers or in internal operations. This simple set of functionalities allows the promoters to organize and trade all kind of events, through a no risk business model based on the income sharing. Tool features make possible bullrings activities internationalisation, tickets expedition schedules relaxation and the access to the ticketing wholesalers in a trustworthy way.

4 ARCHITECTURE

XML Web services are the fundamental building blocks in the movement to distributed computing on the Internet. Open standards and the focus on communication and collaboration among people

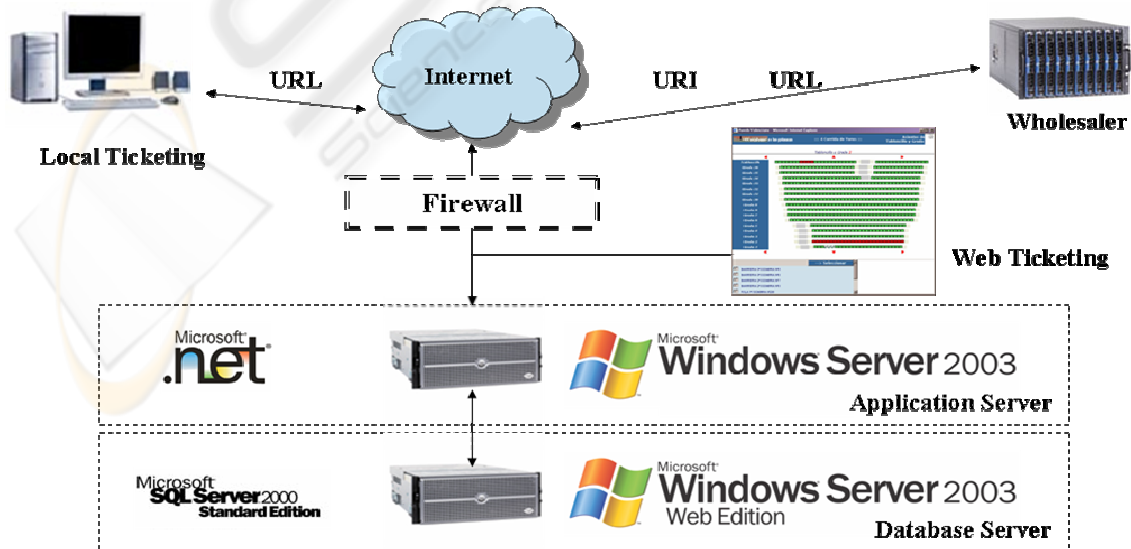


Figure 4: Application Architecture

and applications have created an environment where XML Web services are becoming the platform for application integration. Our XML Web Service (in progress) showed in Figure 4 uses standards as Standard Web protocol (SOAP), Web Services Description Language (WSDL) document and Universal Discovery Description and Integration: UDDI.

Application is based Microsoft Windows 2000 Server and Internet Information Service. Web Services are under development, and it's scheduled to become fully functional in June 2005 together with Microsoft Windows 2003 migration. Hypermedia pages are dynamically built using Active Server Pages (ASP) based on the request of clients. Migration to ASP.net technology is also scheduled in May 2005. Microsoft SQL Server stores all information behind web server. Database structure counts on a total of 37 tables, 13 views and more than 120 associated objects.

5 CUSTOMERS



Figure 5: Customer Map in 2004

Valencia bullring, our first customer, celebrates more than forty bullfighting shows and other twenty additional events (motocross, concerts...). Selling more than 450,000 tickets in Valencia means a technical challenge that forced us to the creation of a set of norms and procedures that have been proved in the installation of the remaining enclosures (see Figure 4).

2005 Forecasts are very favourable too. 2005-2006 biennium expansion plan includes contracts with a maximum of 18 promoters, ranging about 165,000 seats, and more than a million tickets expenditures in 2006. This expansion plan for 2005

includes six new customers, duplicating 2004 enterprise clients.

6 CONCLUDING REMARKS

E-Commerce tool together with no-risk business model based on revenue sharing, have supposed a success guarantee of the initiatives presented in this paper. The introduction of shared technologies in companies with average invoicing supposes a costs cutting and an unquestionable improvement in the service, which, in addition attracts more public to bullrings.

Future developments will be focused in the improvement and generalization of web service use by all system parts, the introduction of experiential elements in the purchase of seats (guided visits, 3D animations, etc) and the adoption of accessibility standards in order to guarantee access to all type of users and platforms.

Expansion reached in bullfighting scope can serve as springboard for the access other to traditional enclosures, like frontons or greyhound tracks. Within bullfighting scope, internationalisation activities include Southern France, Portugal, and, of course, due to market size, Latin-America.

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