



# *Web Ticketing*



**TICKETING ISSUE SYSTEM AND ON-BOARD CONTROL**

**X-System.it s.r.l.**

Sede legale: Via Resuttana, 360  
90146 Palermo PA  
P. Iva 06490520829  
CCIAA REA PA-324596  
xsystemsrl@pec.it

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## Introduction: The project

*The aim of our project is to create a work instrument able to optimize all activities concerning the entrance areas on hydrofoils and ferry boats, by integrating the ticket issuing and the check ticket status. This is due to the use of a web system which is able to control the entire ticket issuing system and the partial traveller access in real time. The entries and relative proceeds will be managed by a central ticket office server on which all selling data are connected together with the check-in coming from one or more systems displaced on the territory.*

*So the system will be able to:*

- To envisage for in-use effective control tools; the efficiency and the correct use of the ticket and the tariff collection;*
- To envisage for appropriate data management tools (the activity of managing the devices and the use of the service made by the users) in order to prevent the forgery attempt, the fraud and the ticket illegal use.*

*In compliance with the arrangements established by the Ministry of the Infrastructures and Transports in Italy, the X-system procedure is described below in relation to the shipping companies obligation to count and identify all people on-board.*

## The Relevant Legislation

*As is widely known, all passengers shipping companies are obliged to count all people on-board during the boarding and disembarkation procedures from any national landing place. For this reason X-system.it has built its own control system on-board by organizing and confirming the ticket issuing with an appropriate procedure. So any*



*unauthorized access will be denied. All data released by the control system, will be immediately available on the company server. They will be controlled by the identification operator specifically selected by the captain. So, all data could be sent to the competent authorities for legal use in any time.*

*Depending on the distance, travellers may have to provide their personal identifications in order to issue the tickets:*

- 1) Passengers that have to travel twenty miles of distance from port to port can buy tickets without providing their personal identifications;*
- 2) Passengers that have to travel more than twenty miles distance from port to port will have the obligation to provide their personal information before to buy the ticket.*

## **The System**

*The system project is composed by:*

- The selling and ground ticket issuing systems;*
- The on-board control systems;*
- The ticket test application software;*
- The application web software for the selling, booking and identification data management*

*The provided system allows the ticket issuing, both with the printed and the electronic contactless type in conformity with the ISO standards 14443 type . They are in compliance with the QR code smart phones visualization too. The system is described below and it is seen as a set of Hardware and Software devices.*



## The system of selling: the ground ticket office.

*The on ground ticket office is the headquarters of the electronic and printed ticket selling operations. It is the only office monitored by the staff which is authorized to sell the tickets.*



*Herein, the employees will provide for the ticket reservation and the ticket issuing. That is why the staff is equipped of booking and selling portal authorized access. It is going to be expected more selling ticket work stations. Moreover, all registered data will be verified through the Administrator access on the online portal. Every operator has to be access authorized and he/she will receive a personal password and username. In this way all activities will be connected to the relevant operator. The system is composed by a multimedia support for every single operator and a thermal printer. It will produce a high definition printing on a 140 gm/m<sup>2</sup> paper classic form with an identification code composed by a QR code.*



### System of selling: dislocated sites.

*The travel ticket selling could be realized through tobacco shops, cafés and offices placed on the whole national territory. A x-200 multi-function terminal could be used, which is equipped by a high calculus power, a compact structure, lightweight and created by a shock absorbent plastic material. It will be always connected to the online company server through the use of a data transmission sim card. So the selling activity will be controlled and verifiable in real time. The efficiency of the system connected to the central server will be remote controlled.*



*In this way the ticket issuing is going to be automatically authorized, registered and unmistakable by ensuring a correct workability of the booking service. All issued tickets will be on-board verified by using the control software device.*



## The Online selling system.

Thanks to the ticket-on-web function the passenger will have the opportunity to track on the internet the travel made by every hydrofoil. So, it will be possible to reach every destination, to set a price, to buy a ticket, and to reserve a seat for the interested travel. These operations will be possible through credit card or prepaid credit card payments usable for online purchases. In real time, the selling data will be transferred to the central system that will make them available for all those control devices of the authorized ticket offices at the moment of the payment.

**Autoservizi Preite s.r.l. (16)**

**Biglietteri a On Line** 14/11/2016 12:57:05

Partenze **DIAMANTE** **0184** **COSENZA AUTOSTAZIONE** **0006** Orario **0000**

Solo diretto  **Ricomincia**

**029773 1345 PRAIA A MARE - BIVIO STAZIONE/** Corsa **029773**

**Mensile** Tessera **000000**

€ **137,00** Decorrenza 14 Novembre 2016

**029762** **030818** **Vai alla cassa**

ANDATA	
029889 - Cosenza	0735
029991 - Mare - Bivio Stazione/Cosenz	0735
029887 - Cosenza	0735
029903 Mare - Bivio Stazione/Cosenza	0735
029751 PRAIA A MARE - BIVIO STAZIONE	0735
029752 PRAIA A MARE - BIVIO STAZIONE	0735
029753 PRAIA A MARE - BIVIO STAZIONE	0620
029772 PRAIA A MARE - BIVIO STAZIONE	1205
029773 PRAIA A MARE - BIVIO STAZIONE	1205
029774 PRAIA A MARE - BIVIO STAZIONE	1535
029775 PRAIA A MARE - BIVIO STAZIONE	1635
029995 a Mare - Bivio Stazione/Cosenz	0735
029997 a Mare - Bivio Stazione/Cosenz	0735

RITORNO	
029762 COSENZA AUTOSTAZIONE-PRAIA A M	1000
029763 COSENZA AUTOSTAZIONE-PRAIA A M	1100
029886 COSENZA AUTOSTAZIONE-PRAIA A M	1000
029888 Diamante	0715
029994 AutostazionePraia a Mare - Biv	0715
029996 AutostazionePraia a Mare - Biv	0715
029886 Diamante	0715
029996 AutostazionePraia a Mare - Biv	0715
029996 AutostazionePraia a Mare - Biv	0715
029987 COSENZA AUTOSTAZIONE-PRAIA A M	1000
029799 COSENZA AUTOSTAZIONE-PRAIA A M	1410
029773 COSENZA AUTOSTAZIONE-PRAIA A M	1410

After that the passengers should print and show the payment receipt to the ticket on-board inspector. The confirmed payment and the QR code reservation number will be included in the receipt.

## **The check-in procedure**

*The ticket selling concerns the boarding pass issuing. If the ticket purchase has been made at the authorized port box office, the boarding pass issue will be directly given by the same ticket office. While if the ticket purchase is made via internet or via dislocated sites, the traveller is not allowed to check-in more than 24 hours in advance before the departure time. Otherwise it is permitted to check-in one hour earlier the departure time. In case of a no-show situation, the traveller will lose the reservation ticket right, and the ticket office will be authorized to make the ticket available. In case of passenger delay, the check-in procedure could be done on the next route, by supposing that the provided one is not available.*

*The boarding pass have to be showed at the check-in and boarding moments.*

## **The tickets for vehicles.**

*The same passenger procedures will be followed for the vehicles boarding. The ticket for the transport of vehicles will include one passenger boarding.*

## **The check-out procedure.**

*The traveller has to keep the boarding pass throughout the journey and, showing it to the responsible check-out operators during the disembarkation moment. All this procedure will allow a precise verification of the travellers number authorized to travel among the different routes.*





## **The control procedure.**

*All passengers need to show their check-in pass to the responsible operators. This procedure will occur in the “control area”.*

## **“Control Area” identification in the boarding and disembarkation sites.**

*In the interest of making effective the control operation aims, the shipping company needs to identify the boarding and disembarking sites in order to fix a single access and exit point.*

*The boarding areas to access to the watercraft are:*

- *The Service area in front of the watercraft entrance corridor. It is recognizable thanks to the delimitation borders and to the control operators;*
- *The Service area beyond the watercraft entrance corridor which is expressly recognisable by the appropriate signage and control operators.*

*The control sites during the debarkation procedures could be:*

- *The access to the exit corridor.*



*The authorized staff will validate the check-in/ check-out operations about every single passenger through the use of the X-system terminal by checking out the ticket code at the entrance. In this way the ticket validity will be easily accepted. So, the on-board traveller counting operation will be updated and the company server will allow the ticket box office to sell new available on-board seats.*



### **On-board ticket qualifying function.**

*The authorized staff will validate the ticket on-board. A specific terminal will confirm the correct validity of the ticket in real time because it is always connected to the central system via internet. A sound signal will scrutinize the validity of the displayed ticket.*



*The reference ticket code will include the following information:*

- *The date of issue;*
- *The number of the ticket;*
- *The acquired route;*



- *The paid amount;*
- *The Validity of the registered passengers (the groups are divided between adults, young people etc.);*
- *The Luggage.*

### **The control software.**

*The company will furnish all devices to the customer (smart phone Android) in which a ticket validation software will be pre-installed.*

*The app. will introduce three key passages:*

- *The Operator Login*

*The operators will issue the ticket on-board and they have to be authorized by the X-system.it. It will provide them a login page to access to the application. In this way it will possible to verify the operator's identity in order to prevent any unauthorized use caused by external people.*

- *The travel integration*

*After the access to the app., the operator should enter the route with the aim to issue the*



*ticket. At this point the app. will confirm the existence of the route, the date and the time.*

*Just after a successful result, the app. will validate the ticket.*

- *The ticket validation*

*The ticket validation will occur through an Android device provided by X-system. It is equipped with a video camera that will scan the ticket QR code in the interest of verify the validation of the ticket. The established parameters are:*

- *The dematerialized ticket correspondence, created after it has being issued.*
- *The first and the only usage of it.*
- *The Coherence of the established route.*
- *More parameters as required*

*Moreover the operator will visualize the number of the authorized people from the combined ticket.*



### **The application update.**

*It is foreseeable that the applications installed in the terminal checker are subjected to modifications. This is because of possible operating system errors or updating requirements.*

*The new application will be sent as a system file. It will start the updating process through a specific command.*

### **Training course.**

*The training courses for the staff which is responsible for the entire use of the equipment will be procured through the support of all company operators during the supplying start-up phase.*

### **Textbook.**

*The instruction manuals will be in Italian language.*

