

# AERONAUTICAL SERVICES AND FEE INVOICING SYSTEM

## SKY-Billing



## **INTRODUCTION**

Operational requirements have driven **Skysoft Servicios** to introduce a product that helps improve service invoicing for all airports that are looking for operational advantages and efficiency in their administrative management: the **SKS BILLING**.

**Skysoft Servicios**, in a bid to offer improved account management presents this system to the market in a standard format with certain flexibility for customization based on specific requirements and totally able to draw information from the AMHS network and all data Banks linked into the system.

## **GENERAL DESCRIPTION**

The Services and Fee Invoicing System is designed to take over and manage all invoiced fees and chargeable items that Aeronautical Services offer their customers. The system is integrated in the AMHS messaging network and can process flight information that is sent and received in this environment.

The Services and Fee Invoicing System automatically calculates the value to be invoiced, based on the information contained in the Flight Plan, any modifications as well as other data sources available. Additionally, the system will also enable invoicing based on manually entered flight data.

The Services and Fee Invoicing System will generate an electronic receipt or as a document that can be sent to other systems via Web Services (WS).

The system will work either in local currency or in United States Dollar (USD).

The system stores all the registered operation in a custom data Bank, and it enables the user work with customer current accounts when set up this way.

The system includes a user administrator, aimed at managing the different access authorization levels each user has for system functionality access, upon entry into the system.

All Graphic User Interfaces (GUI) of this system are Web type and don't require special installation. Working directly with a server guaranties maximum availability and continued performance.

The Services and Fee Invoicing System is a flexible solution that can be integrated into an existing Flight Plan data Bank as well as the in use AMHS system.

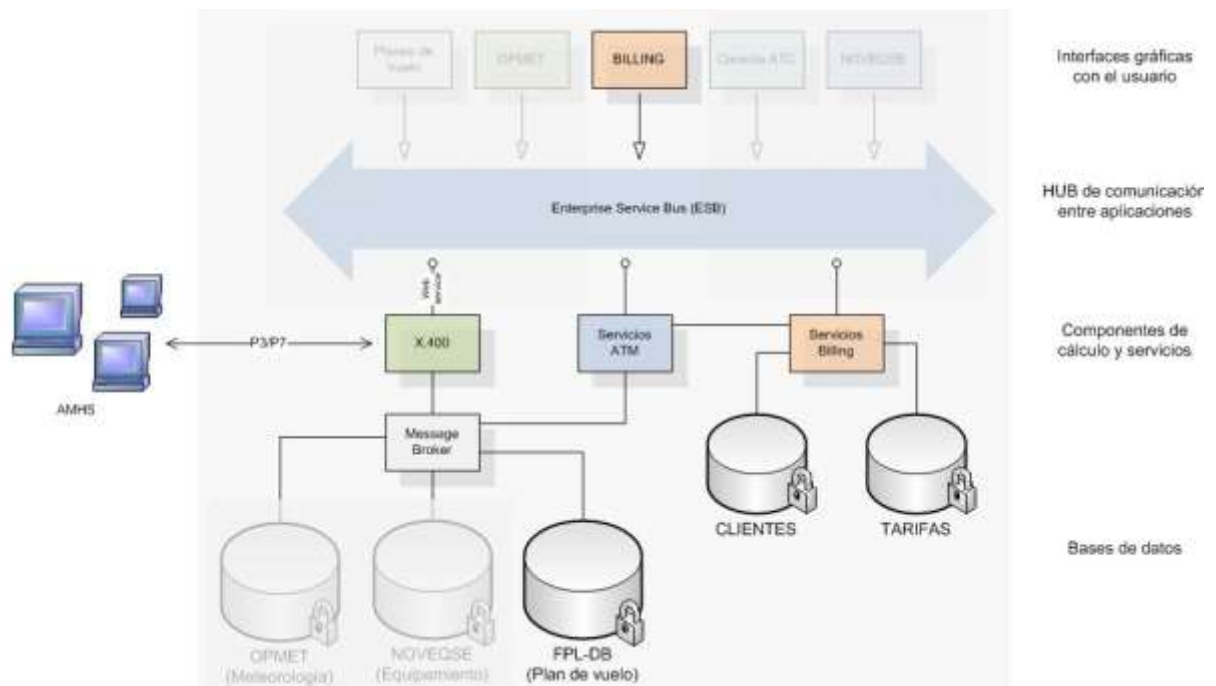
## **PRINCIPLE CHRACTERISTICS**

- Invoice designed with a graphic editor.
- Configurable and customizable.
- Service oriented architecture.
- Integration via Web services.
- Web user interface.
- Multi-currency.
- Discount and tax calculation.
- Current account management.

- Email or X.400 notifications.
- Statistical graphics, reports and audits.
- Unlimited in the type of service or fees to be charged.
- Multiple file formats (PDF, LS).
- ICAO and IATA airfield, aircraft and airline data Bank access.

## **SYSTEM ARCHITECTURE**

The Services and Fee Invoicing System integrates seamlessly into existing AIM systems that are already communicating natively with the AMHS Messaging System currently in use.



## **INVOICING PROCEDURE FOR SERVICES AND FEES, SERVICE COMPONENTS**

The Services and Fee Invoicing System obtains most of the flight information from the Flight Plans (FPL) and their variables (CHG, DLA, ARR, RPL) that are available on the AMHS network.

This information is previously received and updated by the Flight Plan data Bank (FPL-DB), through a Web service that responds to activity requests including new flight plans, deletion of existing flight plans and modifications.

All the information received by the Services and Fee Invoicing System will dynamically generate a flight information tree that can be edited, modified or expanded by an authorized operator, in accordance with operational requirements.

## **SYSTEM INTERFACES**

The Services and Fee Invoicing System is made up of a series of applications that share information through Web Services. Other Web Service compatible systems will



have access to reports or invoices that are generated in the Services and Fee Invoicing System.

### **USER INTERFACE**

The user interface screens are web type, accessible with a standard browser, enabling efficient and speedy upgrades. The creation of an invoice is intuitive, being a simple few step process mainly, flight selection, charges to be included, customer being invoiced, taxes and/or discounts and preliminary invoice acceptance. Once the preliminary invoice has been accepted the Services and Fee Invoicing System will issue a receipt and it links the operation to its corresponding account.

### **FLIGHT EXPLORER**

The operator of the Services and Fee Invoicing System can view all aspects of a selected flight being able to edit the information if authorized. The flight data origin will be the Flight Plan (FPL) message sent via the AMHS network.

### **SERVICES AND FEE SELECTION**

The operator will select the services and fees to be invoiced from a predetermined list and the system will automatically show the calculated the preliminary total for each item selected.

### **CUSTOMER SELECTION**

The operator can select the customer from an available IATA listing.

### **TAXES AND DISCOUNTS**

The end user must first work with **Skysoft Servicios** in the initial system configuration stage, this will ensure that all relevant fees, taxes, services and discounts applicable to their needs are correctly configure into the system.

### **PRELIMINARY INVOICE**

Prior to issuing a receipt, the operator will be able to review the final invoice in the form of a preliminary invoice, requiring acceptance for final processing.

### **INVOICE DESIGN EDITOR**

The invoice design may be modified by the administrator straight from the graphic design tool.

### **REPORT EDITING**

The Services and Fee Invoicing System administrator enables the creation of reports using the Report Editor, based on the data stored in the Services and Fee Invoicing System data Bank.



## **PERFORMANCE**

The operation of the Services and Fee Invoicing System is carried out through graphic components that give immediate responses to user actions.

## **INFORMATION BACKUP**

The management subsystem of the Services and Fee Invoicing System data Bank can be configured to store automatic backup copies of all the information that goes through the system. The storage discs offer redundancy and can be configured in RAID 1 or higher.

## **REFERENCES**

The system has been designed and developed in accordance with the following documents.

- Doc 9705 Manual of Technical Provisions for the Aeronautical Telecommunications Network (ATN), Third Edition, 2002.
- Doc 4444 Procedures for Air Navigation Services Air Traffic Management, Fourteenth Edition, 2001.
- Doc 7100 Tariffs for Airports and Air Navigation Services, 2007.

**Skysoft Servicios S.A.** is an Argentine company ISO 9001:2015 certified for its developments. Our commitment to operational and technological quality are second to none.