

ADVANCED INVENTORY DISTRIBUTION APPLICATION

Actual context and market needs

Travel industry grew in the last decade bringing closer to more and more countries quality travel services and caused the travelers to refine their taste. While standard services like ticketing, car rental and hotel rest assured being distributed by powerful distribution systems, the products of local tour operating agencies, complex touristic offers but also services ready to be resold, suffered from lack of proper computerized management.

Because of their complexity and variety of possibilities, the composed travel offers (packages, tours, charters, etc) are very hard to handle and manage. A complete software solution must be very comprehensive and very difficult to operate.

Solutions were needed to allow the tour operators to create and update inventories and further distribute their travel services to the resellers and even directly to their clients, into a unitary fashion.

AIDA is the solution both for inventories and distribution, for tour operators and resellers as well.

Introducing AIDA

AIDA is the result of many years of research and development together with experienced tour operating agents. The innovative concepts and ideas make this product very important for travel industry, AIDA being today a complete and complex solution covering most of the scenarios, and yet a natural and easy to work with system.

The application adapted valuable concepts from existing distribution systems and was enriched with innovative and smart ideas, bringing distribution closer to the local tour operating agencies.

Started from the idea of a complete computer travel distribution system, the project was enriched with middoffice and reporting features in order to create a complete solution and give the tour operator all the tools needed to fully control the business.

Basic features

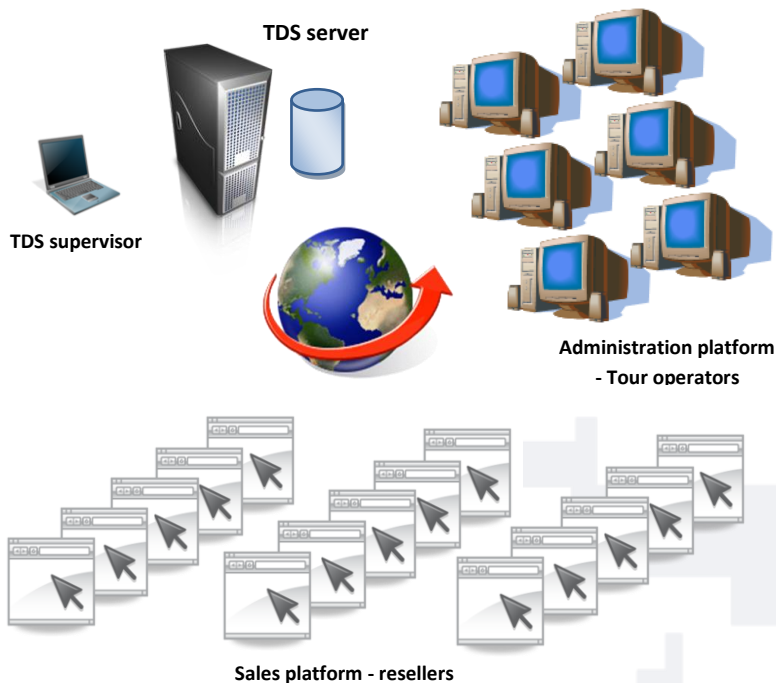
- Developed using the last technologies available in web development, being continuously improved by DCS team.
- Optimized to work with large data volume, with several tour operators and distributors.
- Offers instant access to a wide variety of travel services, carefully loaded and managed by tour operators.
- Automatically manages the reservations for the tour operators (together with voids and refunds), issues the invoices for the resellers
- Allows the reseller to book services from more tour operators on the same reservation.

- Helps the tour operator simulate and verify his offers before opening them to sales
- Allows dynamic packaging by linking several services with optional/mandatory links, with on the fly setup (breaking and rejoining while package is on sale)
- Generates package catalogue and codes
- Comprehensive but yet natural to operate with prices handler
- Uses advanced documents templates manager to allow design of different layouts for documents (vouchers, proformas, travel documents), ensuring flexibility and adaptability.
- Allows the resellers to search and make reservations, manage their reservations, extract their vouchers, proformas into a reseller interface, into their account, based on given credentials.
- Uses e-mail alerts and warnings – configure different warnings to be sent by e-mail (reservations which are about to be cancelled, communication errors, etc.)
- Advanced reporting tool, both for tour operator and resellers
- Keeps comprehensive logs which include each operation and message inside the application, from communication with the distributors to booking operations.

Basic architecture and concept

AIDA is built on the latest generation kernels and integrates new programming concepts and techniques.

The application runs on a central server which stores the databases and is accessed both by tour operators and by resellers users using a web browser based on user accounts, with no other extra software, over TCP/IP protocol standard connection.



AIDA has been designed with a flexible and modular structure, with user access per module and an easy to use plug-in system. The core of AIDA is DCS Engine™, a structured and ready to use development framework, which consists of a collection of libraries, module management, user access granting, auto-complete, XML requests, web service, etc.

Web based software has major advantages:

- Accessibility and scalability
- Low cost implementation and maintenance

Accessibility and scalability

The application is accessible virtually from anywhere. Any member, whether is a tour operator managing the inventories and offers or a reselling agent searching for services, can access the system based on his

credentials from any location, needing just a terminal and a network connection.

Extension of reseller number, adding more users, relocation or any other changes in the structure have no impact in application operation and usage. The architecture adapts to the new structure. The system can accommodate to various changes and grow as much as needed, limited only by central server hardware performance and network bandwidth.

Low cost usage

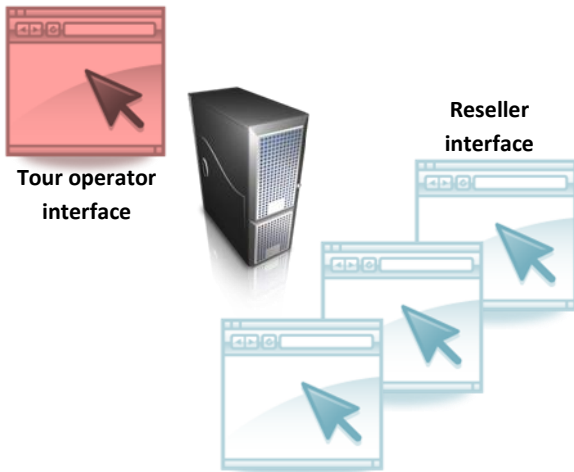
The system runs from a central server which is accessed by all its clients over network, from their terminals, using standard operating systems (e.g. Microsoft Windows®, Linux, Apple OS, etc.) and standard web browsers (e.g. Microsoft Internet Explorer®, Mozilla Firefox, etc.)

The connection to the central server is based on TCP/IP networking protocol, over an existent network infrastructure, very common these days in Internet business.

AIDA requires no special intervention, application or maintenance on user's terminals.

Data stream and coherence

All data issued inside AIDA flows into a single secure and coherent stream, without leaks. No user can manually interfere inside the stream, except by using the controlled inputs. Each phase of the workflow is strictly dependent from the others. This ensures consistent reports and operations security.



AIDA presentation

The system has 2 major branches:

Tour operator interface – the place where the tour operator logs his account and fully controls his projects, inventory, prices, packages, offers, links, penalties, reservations, invoices, reports etc. All setups the tour operator needs are made in here.

Selling platform – the selling interface, opened to the resellers to login into their accounts in order for them to search for services, book, manage reservations, issue travel documents, manage proforma invoices from the tour operator and extract reseller reports.

The system is supervised by a top Administrator which monitors all actions ensuring smooth operation of the entire application.

Projects and services

The tour operator joins multiple services under the same thematic, called a project. Inside each project can be added accommodation services, transportation services and auxiliary services. Each of these 3 types are treated differently by the application in respect to their conceptual differences.

Each service added must pass all the setup stages before going to sale. If all is completely setup, the service is put on sale and the resellers can make reservations.



Service static properties

For each service type define the static properties

For accommodation services

- Types of guests the accommodation unit can accommodate
- Types of rooms the accommodation unit has
- Allowed rooms occupancies

For transportation services

- Departures and itinerary
- Vehicles maximum capacities

Inventory

- Define capacities and availability in each day of the month, for all months which overlap the service lifespan
- Use general rules to define large intervals, treat exceptions at day level
- Day level inventory breakdown for each room type or transportation segment/subitinerary
- Intuitive and highly usable interface
- Browse among the calendar and select each component at day level
- Manage check-ins and stay lengths

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
01.sep.2008	02.sep.2008	03.sep.2008	04.sep.2008	05.sep.2008	06.sep.2008	07.sep.2008
08.sep.2008	09.sep.2008	10.sep.2008	11.sep.2008	12.sep.2008	13.sep.2008	14.sep.2008
				Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6
15.sep.2008	16.sep.2008	17.sep.2008	18.sep.2008	19.sep.2008	20.sep.2008	21.sep.2008
Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6
22.sep.2008	23.sep.2008	24.sep.2008	25.sep.2008	26.sep.2008	27.sep.2008	28.sep.2008
Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6	Single 25 Double 20 Apartment 6
29.sep.2008	30.sep.2008					
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Price layers

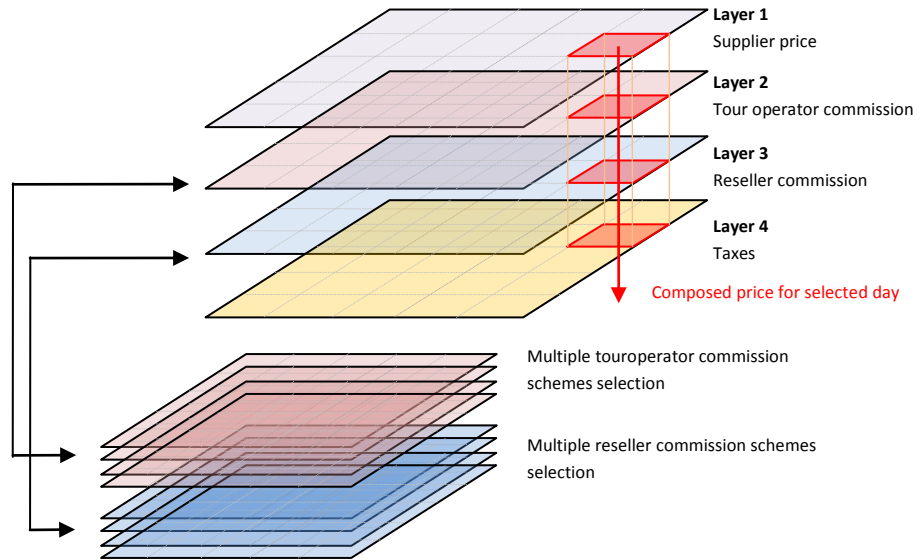
AIDA uses a very comprehensive module for price definition which can cover basically all possible scenarios. All price components can be defined individually:

- Supplier price
- Tour operator commission
- Reseller commission
- Taxes

Using the calendar view, each of them can be beaked down per days ensuring definition at maximum level.

The reseller's commission and tour operator's commission permit multiple schemes, with different values, for different activation intervals. This empowers the tour operator to fast switch between promotional and high season schemes, better motivating the reseller to buy his services.

When calculating the price, AIDA overlaps the layers for each day, adds the corresponding values and outputs the result. The reservation price is obtained from the prices for each day.



Cancellation policy

The tour operator can define cancellation policy for each of his services. The penalty can be defined as percentage of service value, fixed amount or number of nights.

Multiple rules can be added to a single cancellation policy.

Selling restrictions

Certain links can be added between services to ensure some selling targets. The tour operator can join multiple services by linking them with a mandatory link. This way the services will only be sold together. The same way the tour operator can link the services with optional status, only to recommend some options to the reseller.

Dynamic packaging

AIDA does not statically setup packages. Using the linking feature, the packages and restrictions are handled on the fly, while services are on sale.

The packages are only virtually created and be broke down at any moment, allowing live commercial strategies changes.

Reservations

AIDA manages the reservations and their status, auto cancels the ones due to enter cancellation policy and keeps track of e-mail alerts to both resellers and tour operators.

The application's main goal is to do as much as the work with as little operator assistance as possible. That is why most of the processes are automated.

Selling platform

Resellers accounts

The resellers must login into the selling platform using their credentials from the tour operator. Within this interface they can search and book reservations, manage their reservations and extract the proforma invoices and extract vouchers when reservations are ok.

They can create users and set permission levels to access their account, make reports based on their activity using the reporting tools for resellers and even set auto e-mail alerts according to their specific activity.

The resellers can book on credit or on prepayment, according to account type. If on credit, the voucher can be issued immediately, before any payment. The resellers on prepayment must pay for each reservation before extracting the voucher.

Booking and shopping basket

AIDA uses a very intuitive booking form. Using simple steps, the reseller can easily book one or more services from one or more tour operators to which it is affiliated.

- Search for service – the application searches for available services, according to reseller searching criteria.
- Add service to basket – once searched, the service offer is configured and then added to the basket. Multiple services from multiple tour operators can be added.
- Add passengers to the reservation – the reseller must specify the passenger names and then associate them with the services on the reservation.
- Verify the selling restrictions – AIDA signals if there are any mandatory or optional links and restricts the reservation accordingly.
- Finish the booking – if all criteria are met, the reservation can be completed and added to resellers reservations list and at the same time at the tour operator's reservations list.

Administrative tools

Documents template manager

AIDA includes an extensive documents design tool, allowing the tour operator to create multiple layouts for the documents, in order to adapt to resellers and market needs.

The document data can be overlaid on multiple layouts, designed inside AIDA.

A proforma invoice, reservation details, voucher can look different according to the documents layouts.

E-mail alerts

AIDA can send e-mail alerts to the tour operator when certain events are triggered, like:

- Not enough credit (for credit type resellers)
- Reservation due to enter cancellation policy
- Reservation due to auto cancel
- Request reservation confirmed
- Reseller reached the next target level

Operations log

The system logs all operations, from the internal commands and communication with the resellers. AIDA records the date and time, message content and event description. This way the tour operator is always in control of his activity, being able to search into the log at any time.

Reporting tools

The tour operator can define his reporting templates and the extract comprehensive reports, depending on the selected source.

The reports are very useful for prediction, when planning long term strategies. The tour operator can use data mining to extract important information related to his business activity.